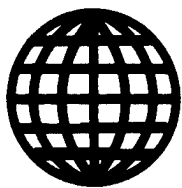


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19 AUGUST 1992



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# ***JPRS Report***

# **Epidemiology**

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# Epidemiology

JPRS-TEP-92-014

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## GHANA

### Alert on Plant Disease to Neem Trees

92WE0615A Accra *PEOPLE'S DAILY GRAPHIC*  
in English 12 Jun 92 p 1

[Article by George Sydney Abugri. Words in boldface, as published.]

[Excerpt] **The environmentalist organisation, Friends of the Earth (FOE) has alerted Ghana of a possible outbreak in the country of an unknown plant disease which is killing neem trees across West Africa.**

The mysterious disease, according to an FOE source, has spread from the Sunday-Chad border to Mali along the north of the sub-region and along the south from Northern Cameroon through Nigeria and Benin to Burkina Faso, which shares a common border with Ghana.

The source said the onset of the disease is characterised by a change in colour of young leaves from green to yellow or a dull olive and the early falling off of older leaves.

Other characteristics of the disease include deformed, infolded, crinkled and curled leaves, wilted shoots, the oozing of yellow gum from branch tips and dead, scorched branches which all lead ultimately to the death of the tree.

Trees which have the disease, according to the source, can also be identified by their strangely bandy, spindly and bushy appearance.

The disease is also found to attack mostly young trees from three months to five years old, putting at risk the large numbers of neem trees planted in recent years under the agro-forestry and reforestation programmes.

In one affected area of the sub-region, 100 percent of neem trees planted in 1991 to reforest environmentally degraded lands have been attacked by the disease, the source disclosed.

In view of the great socio-economic and ecological importance of the neem, the FOE has called on the Forest Research Institute (FRI) and other research organisations in the country to monitor the disease in areas where neem trees have been planted.

In making the call, the FOE has drawn attention to the fact that apart from its ecological importance, the neem, which grows abundantly in many parts of Ghana has a wide range of agricultural, medicinal and industrial uses.

Derivatives of crushed neem seed and leaves provide an excellent repellent against plant pests whilst lamp oil and lubricants can be extracted from neem seed and the residue used as livestock feed and fertiliser.

The tree's leaves and twigs also provide mulch and manure to promote good crop yields, has acclaimed anti-malarial properties and other medicinal uses and provides raw material for the production of soaps, drugs, disinfectants and cosmetics.

[Passage omitted]

## KENYA

### Twelve Cholera Deaths Thus Far in Moita Division

92WE0617A Nairobi *THE KENYA TIMES* in English  
20 Jun 92 pp 1, 2

[Article by Joseph Ngome]

[Excerpt] Twelve people have died of cholera since the disease broke out two weeks ago in Mbita Division, Homa Bay, the District Medical Officer of Health, Dr. Bhidi Okonjo, confirmed yesterday.

A number of people have been admitted to various health centres, medical homes and dispensaries spread all over Migori and Homa Bay districts.

Following the outbreak, all gatherings in funerals, open-air market and beaches in Mbita Division, have been banned by the local provincial administration and the district health personnels.

Dr. Okonjo said the medical team has been sent to Mbita Division to contain the situation from going out of control.

However, reports reaching Homa Bay town said that the cholera outbreak is widespread in Nyatike, Ndhiwa and Mbita divisions, and still spreading like bushfire.

Areas hard hit by the cholera are Karungu West and East locations in Nyatike Division, Kwabai in Ndhiwa, Gembe, Rusinga, Mfangano Location in Mbita Division.

A locational Kanu official in Mbita, Mr. Fred Otieno, said beaches in Rusinga Location have been closed by the chief, Mr. John Omolo Anditi.

Mr. Otieno said that work done by the health team has so far not helped much and appealed to the authorities to move and save lives.

He said several people have been admitted to Icipe clinic, Kamasengere and Mbita health centres. A nurse at Icipe said cholera had been killing people for several weeks in Mbita due to lack of proper medical attention.

[Passage omitted]

### Two Million Infected With Bilharzia

92WE0583C Nairobi *THE KENYA TIMES* in English  
10 Jun 92 p 13

[Article: "Bilharzia: 3.5 Million Infected"]

[Text] More than 3.5 million Kenyans will be infected with bilharzia in the next eight years unless immediate control measures were undertaken.

The head of the vector-borne disease division at the Ministry of Health, Dr. John Ouma told the International Conference on Infectious Diseases that currently Kenya has two million people infected with bilharzia.

He said only an integrated programme of chemotherapy, health education and community participation through the primary health care programme could minimise the spread of bilharzia which becomes chronic if untreated.

Another speaker at the conference, Dr. Fred Wurapa who is the World Health Organisation (WHO) regional advisor for parasitic diseases in Africa told the congress that no single country in Africa does not have problems with bilharzia.

He said currently, the continent has 90 million people infected with the diseases while the global figure was 200 million people.

Dr. Ouma said that of the two prevalent types of bilharzia in Kenya—*Schistosoma haematobium* and *Schistosoma masoni*—the Central region incorporating of Eastern, Central, Rift Valley and Nairobi provinces were the worst hit with current 810,000 people infected with the disease.

However, a part from small areas in Kajiado and immigrant workers, Rift Valley is free of bilharzia, said Dr. Ouma. The worst hit parts of this expansive region are the rice paddy in Mwea, Kitui and Machakos areas.

Coastal region which incorporates the Coast and the North Eastern Province has a current figure of 685 people infected with bilharzia while the lake region has 590,000 people infected with the disease. In all areas, school-children are the worst hit.

Bilharzia is transmitted by the snail and the most affected persons are those who wade in water, fishermen and rice and cotton farmers.

Dr. Ouma said that apart from human beings, some animals such as baboons are suspected to be playing part in the transmission of bilharzia although investigations to this end are not conclusive.

He said the overall treatment of all school-age children in all the affected areas could reduce the prevalence of the disease. "This is the only cost effective method as there is a very slow progress to the development of a vaccine," he said.

He said other methods of control include biological and the killing of snails through chemicals.

Dr. Wurapa later told the press that although drugs were available for the treatment of bilharzia, the major problem was to identify those suffering from the disease. Three drugs have been identified as effective in controlling the water-borne disease. He, however, lamented that the major problem in Africa was the crumbling of the health care system in a majority of countries.

#### **Typhoid Affecting Kiambu, Kirinyaga Districts**

92WE0583A Nairobi THE KENYA TIMES in English  
30 May 92 p 4

[Article: "Typhoid: 56 Treated in 2 Districts"]

[Text] Fifty-six people in Kiambu and Kirinyaga Districts are undergoing treatment after contracting typhoid, the Central Provincial Medical Officer, Dr. E. W. Mwangi, has said.

He, however, said there was no cause for panic as the Ministry of Health had taken the necessary measures to control the epidemic.

Giving a breakdown on the epidemic in a release issued yesterday, Dr. Mwangi said the first outbreak was detected in Kirinyaga on April 28 while that in Kiambu was detected last Tuesday.

He said 34 students from Gitwe Secondary School in Kiambu and 22 others in Kirinyaga were being treated for the disease. As a control measure, he said, his ministry had started a treatment centre at the school to screen and treat others who may be infected.

The health official expressed optimism that the epidemic would soon be brought under control.

#### **Another Kiambu School Reports Disease**

92WE0583B Nairobi THE KENYA TIMES in English  
6 Jun 92 p 2

[Article by Frank Nyagah: "Disease Outbreak in Another School"]

[Excerpt] An outbreak of a water-borne disease has been reported in another school in Githunguri, Kiambu District only a few days after typhoid claimed the life of a Form Two secondary schoolgirl at Gitwe while 32 others were admitted at the Kiambu District hospital last week.

And as scores of boys from Githiga Boys High School flocked at the Kiambu District Hospital, hundreds of mourners attended a church service and the funeral of the deceased, Nancy Nyambura Kihunyu at the Kiambu town's Presbyterian Church of East Africa.

[Passage omitted]

## **MOZAMBIQUE**

#### **Highest Rate of Cholera in Africa**

MB0908184692A Maputo Radio Mozambique Network  
in Portuguese 1030 GMT 3 Aug 92

[Editorial Report] A total of 134 deaths from cholera were reported during the first seven months of 1992. According to a WHO epidemiologic report, more than 8,900 cholera cases were reported in the country during the same period. The WHO bulletin says Mozambique continues to have the highest rate of cholera in Africa.

#### **Over 11,440 Cases of Cholera; 191 Deaths**

MB0908184692B Maputo Radio Mozambique Network  
in Portuguese 0500 GMT 7 Aug 92

[Editorial Report] An Epidemiology Department note dated 3 August states slightly more than 11,440 cholera cases, and 191 deaths, throughout the country have been reported to the World Health Organization. The cholera cases were detected in Manica, Maputo, Gaza, Sofala and Inhambane Provinces, as well as in the city of Maputo.

#### **Thirty Deaths From Measles**

MB0908184692C Maputo Radio Mozambique Network  
in Portuguese 0900 GMT 7 Aug 92

[Editorial Report] Thirty people died of measles at the Rotanda Administrative Post in Sussundenga District,

Manica Province, between 1 July and 5 August. A source from the Manica Provincial Health Directorate told Radio Mozambique that measures would be taken to control the disease, including the sending of a medical team to the area. Patients in the area do not receive frequent medical attention because of difficulties in road access caused by war. The only quick way to reach the area is through Zimbabwe.

## NAMIBIA

### Decrease in Malaria Cases

*MB0908184692D Windhoek Namibian Broadcasting Corporation Network in English 1900 GMT 5 Aug 92*

[Editorial Report] The Malaria Control Program in the north was delayed this year due to the current drought in the country. The regional health inspector said the program was postponed until September because of the shortage of water in the region. He said there was a decrease in malaria cases reported so far this year, compared to the same period last year. He said almost 22,372 cases of malaria were reported this year, compared to 57,548 cases reported last year. Only seven deaths caused by malaria had been recorded at hospitals in the region.

### Foot and Mouth Cases in Okavango

*92WE0501A Windhoek NEW ERA in English 30 Apr-6 May 92 p 9*

[Article by Frederick Simasiku]

[Text] Foot and mouth disease has broken out in the Nanazi area of Okavango Region.

Tissue samples of affected animals had been sent to Windhoek, Pretoria and Gaborone and had confirmed the disease.

State veterinarian Dr. Tom Tolmay said here that the disease was mostly passed on by buffalo and was spread through direct contact.

It is also spread by movement through areas frequented by contaminated animals. The disease affects only cloven-hooved animals such as cattle, goats, buffalo, sheep, pigs and antelopes.

Although there have been no reports of buffalo presence around Nanazi, it is suspected the disease could have been brought in from either Angola or Botswana.

Tolmay warned that the situation could become critical if the disease spread out of Okavango as this would adversely affect the export of beef to South Africa and European countries.

He appealed to the community and travellers to cooperate with the authorities manning roadblocks at Ndongalinene, Shadikongoro and Vikote.

Tolmay said no animal products or animals would be allowed to be moved from these places until further notice. He pointed out that livestock owners should watch out for blisters on their animals' tongues, the insides of their lips, hooves and teats of the cows.

Affected cattle will not be able to graze for three to six days because of the pain in their mouths.

Tolmay said vaccination of cattle had started in the affected area but will be carried out throughout the whole region. Animals will also be treated for lung disease.

"This is a serious disease and if we do not address the situation immediately, Namibia could lose about five percent of its cattle," Tolmay warned.

### Liambezi Region Hit by Foot and Mouth

*92WE0501B Windhoek NEW ERA in English 7-13 May 92 p 6*

[Text] Foot and mouth disease is reported to have broken out in certain areas of Liambezi Region, (formerly Caprivi).

This was confirmed here by Dr. Tom Tolmey, a veterinary surgeon. As a result of the outbreak, no meat or animal product will be allowed to be transported beyond the red line.

"This will make things more difficult as far as marketing of the products in the south is concerned," he said.

The outbreak of the disease also affects milk production in the area.

Uvhungu-Vhungu Dairy manager Henry Mudge, told NEW ERA the dairy would be badly affected because last year he secured a tender to export milk to the Rietfontein Dairy.

Marketing of cattle in the area will not be affected, according to Christo Louwrens, the Meatco representative in Rundu.

The outbreak of the disease does not have any effect on the meat factory in Rundu, or the local farmers.

## NIGERIA

### Chicken Pox Outbreak in Delta, Edo

*92WE0404A THE GUARDIAN in English 29 Feb 92 p 3*

[Article by Onajomo Orere]

[Text] Health and Human Services Minister Professor Olikoye Ransome-Kuti has sent a virologist, Professor A. Fabiyi, to investigate the reported outbreak of chicken-pox in Delta and Edo states.

The ministry has confirmed the death of 60 persons in Cross River and Benue states in a fresh cholera outbreak in three states.

It has also said that the purported outbreak of small-pox reported in Osun State was actually that of chicken-pox, pointing out that the former was eradicated worldwide by the World Health Organisation (WHO) in 1978.

According to the ministry, the 60 deaths were recorded out of 192 cases, with 49 deaths reported out of 129 cases in Cross River and 11 deaths of 61 cases in Benue. No death was reported in Yobe.



The Federal director of diseases control and international health, Dr. Gabisiu Williams, said the minister had visited Cross River to sympathise with the government and people of the state over the misfortune and assess the situation.

Meanwhile, the WHO has recorded, as of February 17, 141,462 cases of cholera in Africa in which 12,800 people died. This represents a case fatality rate (CFR) of 9.048.

The highest CFR of [words indistinct] from Sao [words indistinct] where one in three cases died while Liberia has 30.30 CFR or 49 deaths in 132 cases.

Nigeria with 7,298 deaths from 56,423 cases or 12.93 CFR came fourth behind Cameroon with 462 deaths out of 3,194 cases or a CFR of 14.46.

According to a report, Africa's high death rate stems from [word indistinct] health [words indistinct] lack of plans for emergencies, and treatment of patients coupled with absence of public information and education.

It said the main source was contaminated water and advised communities to reorganise their health systems, stock drugs, construct good latrines and be vigilant for the disease's outbreak.

Public authorities should improve water supply and sanitation and organise quick treatment of patients.

#### **Schistosomiasis Control Program Reviewed** *92WE0613A Lagos THE GUARDIAN in English* 1 Jul 92 p 4

[Article by Akin Jimoh]

[Text] Health and Human Services Minister Professor Olikoye Ransome-Kuti has warned about the scourge of schistosomiasis, a parasitic disease caused by an infective small parasite—affecting no fewer than 717,417 of nine million primary school children in Nigeria.

The disease is mainly caused by the unsanitary habits of urinating and defecating in rivers or streams used in washing, bathing and swimming. The disease is prevalent in all the states and the Federal Capital Territory (FCT), Abuja.

The minister said that preliminary result from 20 states including Abuja showed that Ogun State had the highest prevalent rate of 26 percent among school children, followed by Bauchi State with 23 percent.

Kano and Jigawa states have 14 percent each, while Oyo, Osun, Anambra and Enugu States have nine percent each.

Akwa Ibom State had the least rate of 0.3 percent. The disease affects more male pupils than females by a ratio of nine to seven.

The ministry has trained about 1,800 primary health care workers, personnel of the Federal Office of Statistics (FOS) for the national survey to determine the prevalence of the disease in the country.

Prof. Ransome-Kuti said that the objective of the disease control programme was to reduce its occurrence in the rural communities especially among children.

Besides the national survey, other control strategies by the ministry include, continuous health education as to the causes, prevention and treatment of all infected cases and the chemical treatment of contaminated streams and brooks.

Five areas of the country have been designated pilot project areas where control strategies including treatment of affected children will be carried out before the year ends.

The areas include:

- Pategi in Edu council area of Kwara State, representing rice-growing areas, and
- Malumfashi in Malumfashi council of Katsina State, representing areas with earth dams.

## **TANZANIA**

### **Thirteen Cholera Deaths in Shinyanga Province** *92WE0620A Nairobi THE KENYA TIMES in English* 23 Jun 92 p 8

[Text] Nairobi—Thirteen people have died of cholera in the northern Tanzania region of Shinyanga in the past four days, Tanzanian Radio said on Sunday. Twenty-seven others are being treated for the disease, the radio monitored here said. Health officials were quoted as saying the affected people had been using contaminated water from a well. Cholera epidemics have been reported in seven other regions in Tanzania since February.

### **Outbreak of Meningitis Kills 25** *AB2707215592 Paris AFP in English 1213 GMT* 27 Jul 92

[Text] Dar es Salaam, 27 Jul (AFP) - Twenty-five people have died of meningitis in Tanzania's southern region of Ruvuma in the past two weeks, the ministry of health said here Monday [27 July].

A report by the preventive unit of the ministry said the deaths represented 7.2 percent of 345 people who contracted the disease since its outbreak earlier this month.

The government has said there were enough drugs to treat affected people and urged those with symptoms of the disease to rush to the nearest hospital or dispensary.

## **UGANDA**

### **Cholera Warning in Tanzania Border Area** *92WE0616B Kampala THE NEW VISION in English* 26 Jun 92 p 13

[Article by D. Othin]

[Text] The District Medical Officer, Jinja, Dr. David Kitimbo has alerted the general public of a cholera outbreak in Kisumu and Mwanza in neighbouring Kenya and Tanzania.

This was contained in a circular ref. 7/1/CDD dated 19 June addressed to the Medical Superintendents of Jinja and Kakira Hospitals, medical assistants in charge of units and RC III chairmen in Jinja District.

Because of daily movements across the common border, Kitimbo requested those concerned to treat diarrhoeal cases "with due care" and report any suspected cases to his office using the quickest means. He also requested them to inform religious leaders, secular leaders and headmasters to pass to the people the message to take precautionary measures against cholera.

Kitimbo urged the people to keep good personal hygiene in order to avoid cholera completely and to be clean.

He further advised the people to eat or drink only hot food and beverages and avoid flies and wash fruits like mangoes before eating.

The DMO also requested visitors to report immediately any severe cases of diarrhoea and vomiting to the nearest hospital medical unit or health staff.

The circular was copied to bishops and district kadhi in Jinja who were requested to inform pastors and sheikhs of the same.

#### **Meningitis Outbreak in Prison Kills Five**

92WE0616A Kampala THE NEW VISION in English  
27 Jun 92 p 16

[Article by Michael Sentongo and Paul Sebaggala]

[Text] At least five inmates of Nyenga Prison in Mukono District have died and several others have been admitted to the hospital following an outbreak of a meningitis epidemic in the prison this month.

This office of the District Prisons Commander in Mukono has confirmed the outbreak of the epidemic and the deaths. However, only two dead inmates were identified as Robinson Mayeega, 22, and Herbert Kakooza 19, both of whom died before being taken to the hospital, according to a source in the office who requested anonymity. It said more inmates had died but their identities are yet to be established.

The source said that another batch of inmates, some of whom are in critical condition, by Wednesday, had been admitted to the nearby Nyenga hospital. Two prison warders at the prison are among those admitted, said the source. The warders are one Balyejjusa 'Senior' and wardress Florence Nampala who was reported to be in a critical condition.

The source said that the disease might have been brought into the prison by inmates who are hired out for casual work in neighbouring villages. "This epidemic might have been imported to the prison by the inmates who work outside the prison premises," the sources said.

But when on Tuesday THE NEW VISION visited the prison which is on the border with Jinja District, scared warders blamed the outbreak on the poor sanitary conditions in the prison.

They said that the prison has no latrine or toilet for more than the 50 inmates held there. Even the 12 members of staff don't have a toilet facility.

When these reporters entered the prison compound they saw human excrement littered all over the place with

swarms of flies zooming at the approach of people even on the verandahs of the prison's dilapidated buildings.

The warders at the station blamed the Officer in Charge of the prison, Mr. Musisi Nyombi who they also accused of not minding to ensure even the minimum sanitary conditions in the premises. Nyombi was not available for comment.

Queried as to why the prison had to operate without a latrine, the District Prison Office in Mukono said that it was the responsibility of the individual officers in charge of stations to see that sanitary facilities are maintained at their stations.

Meanwhile, arrangements have been made by the office of the District Prison's Commander and that of the District Medical Officer to have all the sick prisoners treated, THE NEW VISION was told. The inmates who are not yet affected will be immunised by the end of this week, it was learnt.

#### **Cattle Disease Affecting Kiboga Province**

92WE0616C Kampala THE NEW VISION in English  
22 Jun 92 p 16

[Article by Fred Kayizzi. Words in italics, as published.]

[Text] The District veterinary department in Kiboga has reported an outbreak of a cattle disease, known as "contagious bovine pleur-pneumonia" (CDPP). The disease which is spreading in the whole district is said to have claimed more than 150 animals during the last three weeks.

The District Veterinary Officer (DVO) Kiboga Dr. Elizabeth Okello said that the disease has been suspected in Bukomero, Lwamata Kibiga, Masodde and Butemba sub-counties all of which are entirely cattle keeping areas. The DVO also announced the reappearance of rinderpest in various parts of the district.

CDPP which exhibits symptoms of fever and cough kills in only 2 to 3 days and is spread through contact and also through water and pasture contamination.

Reading the DVO's address to mammoth gathering of pastoralists who had gathered at Kyenda Market, on 18 June, the veterinary assistant in-charge, Ssingi Ranching Scheme, Mr. Iga urged the entire pastoral community in Kiboga District to respond to the revaccination campaign supposed to commence today.

The DVO also called upon the cattle farmers to get prepared for the vaccination charges. She further directed the immediate reconstruction of vaccination crushes.

This is the second cattle vaccination campaign in Kiboga in a period of less than a year. The rinderpest campaign was launched in July and ended in December last year.

Other measures to control the spread of the disease by the veterinary department include cattle movement restrictions and barring of purchase of breeding animals from cattle markets.

According to the RCs of the area who requested anonymity, more than 20 out of about 250 head of cattle were found to be infected with the CDPP. The RCs further reported that

cattle keepers in Lwamagaali and the neighbouring parishes of Butemba subcounty have started immigrating to other areas with an aim of evading the disease.

Ssinga Ranching Scheme popularity known as *rukoola* with more than 30,000 head of cattle is the most heavily stocked area in Kiboga District. According to the veterinary department, the area will be most affected by the disease due to overcongestion which facilitates its rampant spread.

## ZAMBIA

### Six Die of Dysentery in Kabompo

92WE0582C Lusaka SUNDAY TIMES in English  
31 May 92 p 1

[Article: "Dysentery Claims Kabompo Lives"]

[Text] Six people have died of dysentery in Kabompo hospital while 39 others have been hospitalised, Dr. Julia Johnson said on Friday.

Speaking in her office Dr. Johnson said the six people died within this month. She said those admitted were not responding to anti-biotic like tetracycline.

Dr. Johnson appealed to the Health Ministry to quickly send the acid biotic to Kabompo before the disease could claim more lives.

### Death Toll From Cholera in Luanshya Reaches 55

92WE0582A Lusaka TIMES OF ZAMBIA in English  
1 Jun 92 p 1

[Excerpts] Cholera has been diagnosed as the killer disease which has ravaged Luanshya for the past five days and whose death toll yesterday reached 55 while 203 people have been admitted to the four various centres.

A deathly aura hang over the usually peaceful mining town as soldiers were mobilised to deliver the dead sealed in plastics from treatment centres to Thompson hospital mortuary and from there to the cemetery for burial.

From Tuesday when the disease broke out 39 bodies had been buried while the other 15 were buried by soldiers after 15 hours yesterday. The bodies buried included those whose relatives had not yet been informed.

Health Deputy Minister Dr. Katele Kalumba who addressed medical workers combating the disease said at the civic centre, water in Luanshya had not been chlorinated for three months and was not fit for human consumption.

"The solution is that councils should be given enough authority to raise money on their own so that they can buy such essentials," he said.

[Passage omitted]

It was learnt from the time the disease broke out 411 patients had been attended to and 206 patients had been treated and discharged.

[Passage omitted]

### Fifteen Cholera Cases in Chingola

92WE0582B Lusaka TIMES OF ZAMBIA in English  
16 Jun 92 p 1

[Article: "Chingola Records 15 Cases"]

[Excerpt] Cholera which claimed more than 80 lives in Luanshya has spread to Chingola where 15 cases of the killer disease have been reported.

So far 15 cases had been identified in the mine areas and ZCCM says it will open up treatment centres to arrest its spread.

A ZCCM spokesman said medical personnel had confirmed the existence of cholera and measures had been taken to prevent more areas from infection.

In Lusaka, Deputy Health Minister Dr. Katele Kalumba said he suspected the disease might have been spread by relatives who transported bodies of cholera victims from Luanshya where the disease earlier broke out.

[Passage omitted]

### Corridor Disease Hits Cattle in Mumbwa

92WE0619A Lusaka TIMES OF ZAMBIA in English  
15 Jun 92 p 1

[Text] Corridor disease has broken out in Mumbwa killing hundreds of cattle and Lusaka butchers are rushing to the area where desperate villagers are selling animals at give-away prices.

Deputy Minister of Lands, Mr. Edward Shimwandwe said the outbreak had hit Shibuyunji and Kapyanga areas of Mumbwa and cattle were dying in large numbers.

Veterinary officers were unable to vaccinate or dip the animals although the drugs were available because of lack of transport. [as received]

Mr. Shimwandwe who is Member of Parliament for Mwembeshi directed the senior veterinary assistant Mr. Peter Mushoke to find transport and vaccinate the animals before the killer cattle disease spread.

Police had mounted roadblocks on all roads leading to infected areas to avert spreading of the disease and prevent the unscrupulous butchers from buying the infected animals and carcasses.

## ZIMBABWE

### EC Broadens Permitted Area for Beef Exports

92WE0556B Harare THE HERALD in English  
14 May 92 p 13

[Text] Zimbabwe's catchment area for beef exports to the European Community [EC] has been extended from Mashonaland West to Mashonaland East and Makoni district in Manicaland province.

Director of Veterinary Services, Dr. Stuart Hargreaves, said in Harare yesterday that the decision had been taken at a meeting of a Standing Veterinary Committee of EC member states in Brussels last week.

"There was a standing veterinary committee meeting in Brussels made up of vets from member states and they agreed that the catchment area could be increased to Mashonaland East and Makoni district."

Mr. Hargreaves said the decision indicated a "big step forward" for Zimbabwe's beef exports to Europe because most of the beef being slaughtered as a result of the drought will be exported to that part of the world.

Beef exports to Europe have occasionally been suspended following foot-and-mouth disease outbreaks in some parts of Zimbabwe.

After an outbreak at a farm in Mashonaland Central last year, beef exports which resumed in January this year, were restricted to Mashonaland West province.

"I hope in the next few months, parts of the Midlands will also be back on stream."

Dr. Hargreaves said the Ministry of Lands, Agriculture and Rural Resettlement was now negotiating for a higher quota to the EC.

Zimbabwe is allowed to export 9,100 tonnes of beef to Europe. This quota is likely to be achieved by August this year just from the Chinhoyi abattoir.

The country has three abattoirs for fresh beef exports in Kadoma, Chinhoyi and Marondera. The Bulawayo abattoir is only for processed meat.

"The Bulawayo abattoir exports through the Cold Storage Commission's canning factory to Europe," he said.

This is due to the foot-and-mouth disease history in Matabeleland.

Dr. Hargreaves said an EC delegation was in the country last week to inspect the abattoirs.

"The visit was successful and all the abattoirs were found up to standard and this assures us that the beef exports will continue."

He said the EC standards were exceedingly high and the fact that Zimbabwe can pass these standards gives the country's beef worldwide acceptability.

It opens doors to other interested markets such as Mauritius, Seychelles and South Africa, he said.

Dr. Hargreaves said the foot-and-mouth disease was under control except for a few areas which still had cattle with carriers. The Department of Veterinary Services is screening such animals in the Midlands.

He said the drought posed a threat to the foot-and-mouth disease control exercise because of animal movements. Livestock, both domestic and wild, are on the move in search for food due to the drought.

"We are just trying to maintain our surveillance and farmers should be warned of this risk and we hope to get co-operation from these farmers especially those in restricted zones," he said adding that he appreciated the co-operation some of the farmers were already giving them.

He said cattle could also be affected by the tsetse-fly in some areas where dipping had to be stopped due to water shortage. However, the department continued to make steady progress in eradicating the fly.

Although the tsetse-fly, which causes sleeping sickness in humans and beasts, is now confined to the extreme north, other areas could be re-invaded if controls are stopped.

"The situation had to be constantly monitored because of the threat of re-invasion," he said.

The biggest threat lies along the Mozambican border where tsetse-fly controls are limited due to the security situation in that country.

**Fewer Epidemic Cases Reported**

OW0707085392 Beijing XINHUA in English  
0749 GMT 7 Jul 92

[Excerpt] Beijing, July 7 (XINHUA)—Fewer epidemic cases have been reported this year compared to the same period last year.

Yet the number of the hepatitis B and measles cases increased in some parts of the country, revealed Dai Zhicheng, director of epidemic control with the Ministry of Public Health.

Dai stressed the summer work of combating infectious diseases, saying that the Ministry of Public Health has demanded the establishment of anti-epidemic organs throughout the country to promote epidemic surveillance and to prepare for emergencies.

The top priority will be the prevention of contagious intestinal diseases such as hepatitis B, typhoid, dysentery and cholera.

[Passage omitted]

## CAMBODIA

### Malaria Cases in Kompong Speu Province

*BK1807072092 Phnom Penh Samleng Pracheachon  
Kampuchea Radio Network in Cambodian 0430 GMT  
18 Jul 92*

[Text] According to the health service of Kompong Speu Province, during the first six months of 1992, the unit in charge of fighting malaria uncovered 3,350 cases with the number of patients affected by falciparum reaching 3,050. These patients have been taken care of and successively treated by the local health service.

At the moment the malaria mortality rate has gradually decreased. In 1991, over 40 people died because of malaria. The provincial health service is focusing on educating people on hygiene and preventive measures with the stress on (personal) hygiene and education to eliminate superstitions and unreasonable beliefs among the people.

### Outbreak of Cholera Along Mekong River

*BK0707085192 Hong Kong AFP in English  
0645 GMT 7 JUL 92*

[Text] Phnom Penh, July 7 (AFP)—About 150 cases of cholera have been reported along the Mekong River in Cambodia, the United Nations said Tuesday.

The outbreak comes about a week after Cambodian refugees from Thai border camps were repatriated to villages along the river in the province of Kompong Cham.

Several outbreaks of cholera at the Site 2 refugee camp had halted repatriation in June, but the situation had returned to normal, according to the U.N. High Commissioner for Refugees (UNHCR).

A U.N. spokesman said the cholera outbreak was not related to the refugees' return, but that he had not looked into it.

U.N. doctors were sending 5,000 doses of vaccine to the province to immunize the U.N. troops from India stationed there, the spokesman said.

A UNHCR spokesman could not be immediately reached for comment.

### Cholera Occurs in Kompong Cham, Ratanakiri

*BK1707051692 Phnom Penh SPK in English  
0406 GMT 17 Jul 92*

[Text] Phnom Penh SPK July 17—Sixty people died and more than 500 suffered from cholera in two provinces during the first six months of this year.

The riverine provinces of Kompong Cham and Ratanakiri with a total population of 1,139,300 have been mostly affected by cholera.

According to provincial health sources, 30 people died and 200 others suffered from this infectious disease in Kompong Cham.

The sources added that similar numbers had been reported in Ratanakiri, some 350 km northeast of Phnom Penh,

which houses only 15,200 people, the smallest population figure as compared with those of other 19 provinces and two cities in the country.

Last year, 92 people died and some 700 others infected from cholera across the country, in which, the death toll in Kompong Thom alone reported by accounted for 85 people. [as received]

### Seventy Deaths From Cholera in Kompong Cham in Jun-Jul

*BK0908122392 Phnom Penh SPK in English  
1058 GMT 9 Aug 92*

[Text] Phnom Penh SPK August 9—Seventy people in Kompong Cham Province were killed by cholera during June and July this year.

According to the provincial health service, the highest figure has been recorded in Stoeng Trang District where the death toll amounted to 21 people in June alone.

During the last two months, the service said, 460 local people throughout the province suffered cholera with 217 cases recorded in June, and the remaining 243 in July.

This year, the dangerous disease has reportedly spread over a number of riverine provinces such as Kratie and Stung Treng, which were badly affected by floods last August.

To prevent the disease from further spreading, three international humanitarian organisations, including the Children Fund of Australia, the Medicine Sans Frontier and the International Red Cross have provided Kompong Cham with medical equipment, medicines and fund and visited cholera hit-areas.

## JAPAN

### Man Returns From Philippines With Cholera

*OW1707042592 Tokyo KYODO in English  
0348 GMT 17 Jul 92*

[Text] Osaka, July 17 KYODO—Quarantine officials at Osaka International Airport have discovered that a Japanese man who returned from the Philippines was infected with cholera, the Health and Welfare Ministry said Friday. The patient, who was hospitalized in fair condition, is the third traveler stricken with cholera to arrive at Osaka International Airport this year.

According to the quarantine office report, the 53-year-old company employee from Kakogawa in Hyogo Prefecture left Osaka on July 2 and stayed in the Philippines until July 14. The patient began suffering diarrhea and other symptoms of cholera on July 11.

## SOUTH KOREA

### ROK Has 12 Cases of Puumala Virus; Vaccine Developed

*SK0906084292 Seoul YONHAP in English  
0818 GMT 9 Jun 92*

[Text] Seoul, June 9 (YONHAP)—Twelve South Koreans were infected last year with the puumala virus, which causes

hemorrhagic fever with renal syndrome (HFRS), Yi Howang, a professor of microbiology at Korea University Medical College, said Tuesday.

Puumala is mainly found in northern Europe and Russia. It is the first time it has been detected on the Korean peninsula, where the hantaan and Seoul viruses were previously the only known causes of HFRS.

Epidemiological tests were conducted last year on 2,679 people in Seoul, Kyonggi and Chungchong Provinces who showed HFRS symptoms last year, and 374 were found infected with viruses, 12 of them by the puumala virus, Yi said.

He said his team had developed a puumala vaccine, the first in the world, after a year-long animal test in a joint effort with the Institute of Poliomyelitis and Viral Encephalitis at the Russian Academy of Medical Science, the microbiologist said.

Yi's research team injected the blood of HFRS victims and other viruses concocted from rats into vaccinated guinea pigs and found that the antibodies formed by the vaccine could effectively prevent puumala, he said.

Yi is planning to visit Russia to participate in an HFRS symposium there June 20 and will make public the results of the joint research while asking for another round of joint tests of the vaccine on humans.

In HFRS, the patient abruptly develops a fever as the virus attacks the blood network, causing many complications associated with the kidneys and leading to death in some cases.

#### **Suspected Cholera Carriers Tested**

*SK0707064592 Seoul THE KOREA HERALD in English 7 Jul 92 p 3*

[Text] A medical test is being conducted on 74 suspected carriers of cholera-causing bacteria, as the germ was found on the toilet of a foreign passenger plane.

The Ministry of Health and Social Affairs said yesterday that cholera germs were detected last Thursday on Garuda Indonesia Airlines Flight 952, prompting the test.

The plane arrived at Kimpo International Airport from Jakarta, Indonesia, via Singapore.

In April and May, the ministry discovered two carriers among travelers returning from Southeast Asia, where the epidemic is running riot. They have been quarantined to stop the spread of the epidemic, a ministry spokesman said.

There is the constant possibility of the epidemic entering the country via overseas travelers, given that there were more than 270,000 cholera patients reported in 43 countries as of June 4.

During overseas tours, travelers are encouraged to take boiled food and water, and wash their hands before eating, so as not to contract cholera, the spokesman said.

Any traveler showing symptoms of diarrhea after returning home should lose no time in reporting to public health clinics, he noted.

Last year, the epidemic hit the country for the first time in 11 years, in infecting 113 people and killing two.

#### **Woman Diagnosed as Cholera Carrier After Touring Thailand**

*SK1107031392 Seoul YONHAP in English 0250 GMT 11 Jul 92*

[Text] Seoul, July 11 (YONHAP)—The Health and Social Affairs Ministry said Saturday that a Korean visitor to Thailand was a cholera carrier and had been admitted to hospital for treatment.

The unidentified woman arrived home Monday aboard Korean Air Flight 636 after traveling around Thailand with 13 people.

Four cholera patients and two carriers have been found among travelers to Southeast Asia this year, and all have been cured.

The ministry tested 74 Koreans who were on a Garuda Indonesia Airway flight 952 early this month after finding cholera bacteria in the plane's lavatory, but nobody was found infected with or carrying cholera germs.

#### **Man Found With Cholera After Visiting Thailand, Taiwan**

*SK1108122292 Seoul YONHAP in English 0734 GMT 11 Aug 92*

[Text] Seoul, Aug 11 (YONHAP)—The Health and Social Affairs Ministry said Monday a Korean who recently visited Thailand and Taiwan was a cholera carrier and had been admitted to hospital for treatment.

The man, identified only as Yi from Taejon, arrived July 30 on United Air Flight 826 after traveling in Thailand and Taiwan.

He was found to be carrying cholera during a medical check at a public health center on Aug 3 and is thought to have picked up the disease while on his travels, the Ministry said.

### **LAOS**

#### **Illnesses Erupt in Pak Seng, Dakchung, Killing 8**

*BK2707113292 Vientiane KPL in English 0912 GMT 27 Jul 92*

[Text] Vientiane, July 27 (KPL)—Three villages in the town of Pak Seng district, Luang Prabang Province, since early July have been attacked by malaria, diarrhoea and dysentery, killing eight persons among the 305 affected.

The illness-stricken villages are Don Khoun, Houai Vat, and Phou Sin.

Efforts to prevent and curb the illnesses and cure the affected are being taken.

Another report from the southern Sekong Province indicated that up to July 24, 1992, measles, diarrhoea, and

malaria were very serious in Dakchung District, forcing the villagers to leave their houses and take refuge at their fields.

"The Dakchung Health Service runs short of medicines and health workers. The five affected villages are in remote areas hardly accessible. The local residents still maintain their old lifestyle and are superstitious," reasoned Mr. Bounvon, governor of Dakchung.

The district authorities in collaboration with the provincial health service have dispatched medical personnel and some medicines to the scenes.

### **Measles Kills 130 in Dakchung Mar-Jun**

*BK2406032692 Vientiane Vitthayou Hengsat Radio Network in Lao 0000 GMT 24 Jun 92*

[Excerpt] Informed sources in Dakchung District, Sekong Province, disclosed on 22 June that during the past three months, from March to the present time, an outbreak of measles has spread all over the district. As a result, 130 people have died, most of the victims of the epidemic being children under 14 years of age.

At the present time, medical units are continuing to collect data and statistics on the death of the children and the spread of the disease. Somsai, official attached to the Public Health Service of Dakchung District, confirmed that this particular disease has spread extensively in various areas, including the district municipality. According to preliminary information, 130 people have died of the disease. [passage omitted]

### **More Children Killed by Measles in Dakchung**

*BK0607100492 Vientiane KPL in English 0909 GMT 6 Jul 92*

[Text] Vientiane, July 6 (KPL)—The outbreak of measles still persists among children in Dakchung District, Sekong Province, claiming 13 more lives of children, Mr. Samli, member of the Dakchung district party committee confirmed on July 1.

The epidemics have kept spreading in the villages of Dak-tong, Dakmai, Dakyu, Monchung, and Dakpong. Among them Dakpong suffered most.

Since the outbreak of measles in Dakchung district area in March 1992, 143 children have been killed by the disease.

### **'Smallpox' Spreads in Sekong Province**

*BK2606051592 Vientiane KPL in English 0911 GMT 24 Jun 92*

[Text] Vientiane, June 24 (KPL)—At the beginning of the rainy season, epidemics have attacked children and cattle in various areas of the country such as Dakchoung District of Sekong Province, and Saravane.

In Dakchoung District, 130 people mainly children aged below 14 were killed by smallpox in the past 3 months. Now the district health service is taking measures to combat the spread of the disease.

Dakchoung District is a very remote area where the population, mostly minorities, still stick on their old custom in leading their life. Health education and sanitation are still unknown to them. Besides, the district hospital has lacked medicines and medical equipment. All this also makes it difficult for the effort to do with the spread of the disease. However, now the district medical personnel are preparing traditional medicines to help cure the illness.

In Saravane District, hemorrhagic septicemia has killed 38 water buffaloes as they have not been covered with vaccination. Meanwhile, it was also reported that cholera killed 39 pigs there.

### **People in Khammouane, Oudomsai Affected With Malaria**

*BK3006114292 Vientiane KPL in English 0915 GMT 30 Jun 92*

[Text] Vientiane, June 30 (KPL)—The Malaria units of the central Khammouane Province have, in the last six months of this year, tested blood samples of local population in the three high-risk areas of the province. It was found that 21 out of 617 samples were affected by Malaria.

Meanwhile, the units responsible for the expanded immunization programme were busy vaccinating people in 25 areas covering 66 villages.

According to the statistics, 21,525 anti-polio shots were administered. In addition, 3,534 anti-measles, 996 anti-diphtheria and whooping cough, 2,704 anti-tuberculosis and 3,413 anti-tetanus shots were given to the people. It was also reported that through the campaign, 1,907 pregnant women and 3,570 babies of the target areas received benefits from the health workers.

Meanwhile, the Malaria stations of northern Oudomsai Province tested the blood samples of 744 people of Sai, Beng and La Districts. Out of these, 88 cases were positive.

It was additionally reported that 33 patients in Paksan town, Bolikhamsai Province, had hemorrhagic dengue.

### **Spread of Hemorrhagic Septicemia in Attapeu**

*BK2407111092 Vientiane KPL in English 0912 GMT 24 Jul 92*

[Text] Vientiane, July 24 (KPL)—During July 15-22, hemorrhagic septicemia broke out at Sekhaman, Oudomsai, La Gnao, and Hom villages of Samakhisai District, Attapeu Province, killing 34 water buffaloes and three cattle.

Local veterinarians are urgently taking preventive and curing measures to cope with and curb the spread of this dreadful illness among domestic animals.

Late last month, this epidemic also killed 42 water buffaloes in Sanamsai District of this southern province. Measures are being taken to normalise the situation.



**Epidemics Hit 328 Children in Bokeo in May***BK2206150892 Vientiane KPL in English 0932 GMT 22 Jun 92*

[Text] Vientiane, June 22 (KPL)—Some 328 children aged from one day to four years old in Bokeo provincial town during last month were attacked by malaria, lung infection, and diarrhea, medical personnel of the Bokeo Hospital said.

Dr. Phisit of the hospital attributed the cause of the epidemics to lack of sanitation, health education, plus quick change in weather that affected children's body temperature and antibody system, particularly during the rainy season.

**Epidemics Kill Many Buffaloes in Khammouane***BK1006093892 Vientiane KPL in English 0909 GMT 10 Jun 92*

[Text] Vientiane, June 10 (KPL)—Three areas of Mahasai District, Khammouane Province, in the first three months of this year were seriously attacked by foot and mouth disease and haemorrhagic septicemia. As a result, 610 water buffaloes and 62 cattle died of the epidemics.

The losses in domestic animals were attributed to the lack of coordination between the local veterinarians and farmers, resulting in failing to give vaccine shots to animals.

**Saravane Province Epidemic Outbreak***BK2307125692 Vientiane KPL in English 0916 GMT 23 Jul 92*

[Text] Vientiane, July 23 (KPL)—Epidemic mainly hemorrhagic septicemia, broke out severely at Nong Boua village, Saravane District, the province of the same name, between July 13-16, killing 26 cattle.

The head of the district veterinary service claimed that the loss was due to negligence of animal owners in getting their stock vaccinated.

Since mid-June, people in the district of this southern province have lost 47 cattle due to this epidemic.

**Epidemic Kills 7,374 Animals in Sayaboury***BK0608074592 Vientiane Vitthayou Hengsat Radio Network in Lao 0000 GMT 6 Aug 92*

[Text] Authorities of the Veterinary Service of Sayaboury Province reported that there were periodic outbreaks of hemorrhagic septicemia and foot and mouth diseases in the first six months of this year.

As a result, 7,374 livestock raised by the people in the province have died. These were 329 buffaloes, 46 cows, 182 pigs, 2 elephants, 59 horses, and 6,756 poultry. The total damage has been estimated at 2 billion kips.

In addition, the official disclosed that during that period, a team of cadres dispatched by the provincial veterinary service were able to provide medical treatment and inoculation for more than 4,500 animals. A total of 1,445 cows have been vaccinated.

**MALAYSIA****Foreign Workers Carrying New Type of Malaria Parasite***BK0908090892 Kuala Lumpur Voice of Malaysia in English 0800 GMT 9 Aug 92*

[Text] Foreign workers in Malaysia have been identified as carriers of a new type of malaria parasite against which there is no vaccine. The Malaysian Medical Association's Estate Medical Committee chairman, Dr. A.M. Patoo, said it will be difficult to control the diseases once it is transmitted to locals through blood transfusions and mosquito bites. He said the committee feared it would create havoc in the plantation industry if no immediate preventive measures were taken. Dr. Patoo said the situation should be (remedied early) before it became out of control and the whole public health was in jeopardy.

**THAILAND****Outbreak of Cholera Inside of Camp***BK0807012592 Bangkok BANGKOK POST in English 8 Jul 92 p 8*

[Text] Preparations are under way for the repatriation of Cambodians to resume from Site 2 after a three-week disruption by an outbreak of cholera inside the camp, the United Nations High Commission for Refugees (UNHCR) reported.

The movement from Site 2 will resume this Saturday.

The disruption there was compensated by movements from two other camps of Site B and Site 8 and, as of yesterday, the cumulative total of Cambodians to have been sent home from Thailand since the operation began on March 30 amounted to 45,103.

Movements from five border camps yesterday took 679 Cambodians to the reception centre at Siem Reap.

The Cambodian peace agreement signed in Paris last October put the UNHCR in charge of repatriating some 375,000 Cambodians in time for general elections in April or May next year.

**VIETNAM****Hemorrhagic Fever Recurs in Can Tho Province***BK1506140292 Hanoi Voice of Vietnam Network in Vietnamese 0500 GMT 12 Jun 92*

[Text] In the last month hemorrhagic fever has recurred and developed into an epidemic in Phung Hiep and Long My Districts, Can Tho Province. As many as 266 children have been hospitalized and six of them have died. Long Phu, Thuan Hung, and Tan Phu Thanh Villages, Long My District, are the hardest hit areas. As many as 170 children have contracted the disease.

The provincial preventive medicine center and the sanitation and epidemic control teams in the above-mentioned districts have dispatched cadres to the affected areas to help the local dispensaries with medical care and treatment.

Can Tho Province has initiated a disease prevention and control campaign among the grassroots establishments this summer.

**Outbreak of Hemorrhagic Fever in Ben Tre, Kien Giang**

*BK2206105292 Hanoi Voice of Vietnam Network  
in Vietnamese 1100 GMT 21 Jun 92*

[Text] At the beginning of the rainy season, there was an outbreak of hemorrhagic fever in the provinces of Ben Tre and Kien Giang.

In Ben Tre the epidemic flared up in Thanh Phu District, infecting more than 330 people and killing this month. [As heard]

In Kien Giang, the disease killed seven and infected more than 300 people in Ha Tien District. In areas with a high density of mosquitoes, the epidemic may increase its claim in the future.

The Preventive Medicine Centers of the two provinces have applied measures to prevent the epidemic by spraying DDT, improving sanitation, and providing treatment to the infected.

**Encephalitis B Epidemic Kills 9 Children in North**

*BK3006070092 Hanoi VNA in English 0614 GMT  
30 Jun 92*

[Text] An encephalitis B epidemic that broke out in many northern provinces early this month has left at least nine children dead arriving too late at the Vietnamese-Swedish Children's Hospital in Hanoi.

The epidemic first appeared in the two northern mountain provinces of Ha Giang and Ha Bac, affecting hundreds of people. It then spread to 10 other provinces where treatment against the disease was unavailable.

Thus the Vietnamese-Swedish hospital, the leading children's hospital in northern Vietnam, received 165 child patients in the first 20 days of June. Of these cases, 41 were sent in from the province of Hai Hung and 35 others from Ha Bac.

As children in Vietnam have not been vaccinated against encephalitis B, the incidence is likely to rise if no drastic measures are taken.

Medical workers at the hospital said they were looking forward to help from the government, World Health Organization (WHO), and United Nations Children's Fund (UNICEF), the two major international donors for the current implementation of the Expanded Programme of Immunisation (EPI) in Vietnam.

**Forty Percent of Population Threatened by Malaria**

*92WE0552A Ho Chi Minh City TUOI TRE  
in Vietnamese 16 Jun 92 p 1*

[Article by K.S.: "Forty Percent of Nation's Population May Contract Malaria"]

[Text] At present, 40 percent of our country's population is included in the areas that are threatened by malaria. Every year, 1-3 million people contract malaria, with 1,000-3,000 deaths resulting from the disease; in 1991, 4,000 people died of it. In recent years, spraying DDT was able to protect only about 10-12 percent of the local population from the threat of malaria; the quality of the sprayed compound was not guaranteed.

The Municipal Malaria Department of the Tropical Diseases Center recently began an experimental use of "artemisinin" in the treatment of malaria and found that it was very effective. The experimental spraying of the chemical Sumithion 40WP in the organic phosphate group manufactured by Sumitomo Company (Japan), in the dosage of 1 gram per square meter, showed that it was able to destroy a number of species of malaria-transmitting mosquitoes, did not have very nauseating a smell, and did not stain walls too badly; for these reasons, people could more easily accept it than the DDT spray. To impregnate mosquito nets with Permethrin in the dosage of .2 gram per square meter provides protection that lasts for about six months. In addition to its effects on mosquitoes, this chemical can also chase away and destroy such harmful insects as bedbugs, lice, roaches, and flies; consequently, people tend to accept it, which makes it suitable for using it as the main insecticide.

**Malaria Epidemics Reduced**

*BK0307153592 Hanoi VNA in English 1418 GMT  
3 Jul 92*

[Text] Hanoi VNA July 3—In the first six months of this year, malaria outbreaks dropped considerably, thus reducing the number of sufferers from malignant malaria by 30 percent, and the mortality rate by 16.9 percent compared with the same period last year.

This was reported at a conference held here on July 2 by the Ministry of Public Health in the presence of Vice Chairman of the Council of Ministers Nguyen Khanh.

So far this year the government has allotted 20 billion dong to a national programme for preventing and fighting the disease. Two hundred and ninety-two mobile health teams have been established, of them 256 funded by the government, and 2,414 mountain hamlets have got financial assistance for the fight against malaria.

However, Minister of Public Health Pham Song said, malaria remains a scourge for many regions, especially in areas where anti-malaria chemicals have not been used. Last year more than 100 outbreaks of malaria were reported throughout the country. More than 1.1 million were struck by the disease, of whom 4,500 died. Also last year, the government provided only 6 billion dong for the anti-malaria programme.

**YUGOSLAVIA****Typhoid Outbreak in Tuzla**

*LD1008162392 Hamburg DPA in German 1616 GMT  
10 Aug 92*

[Text] Frankfurt/Main/Split (DPA)—There is evidently an increasing danger of epidemics in the Bosnian civil war region. According to reports from aid organizations, typhoid has already broken out in the town of Tuzla. A

spokesman for the Committee for Basic Rights and Democracy, Klaus Vack, who returned from the Croatian city of Split today, reported that many inhabitants had already succumbed to the disease due to the lack of hygiene in the Serb-besieged town. The spokesman for the aid organization, which brought medicines worth 60,000 Deutsch marks to Split, quoted information from the Red Crescent, which regularly evacuates inhabitants from Tuzla to Split.

## ARGENTINA

### Measles in Cordoba Province

PY0608213392A Buenos Aires TELAM in Spanish  
1304 GMT 1 Aug 92

[Editorial Report] The Health Ministry has reported that a total of 563 measles cases were registered in Cordoba Province from January through July.

## BELIZE

### Ministry of Health Intensifies Anti-Cholera Campaign

FL1107182292 Bridgetown CANA in English  
1621 GMT 11 Jul 92

[Text] Belize City, Belize, July 11, CANA—The Belize Ministry of Health has stepped up its anti-cholera campaign and issued what it calls "a state of alert" following a major increase in the number of reported cases of cholera in neighbouring Guatemala. An emergency meeting of the health, immigration, and police departments has been called for Monday to discuss the situation.

In January, three cases of cholera were notified and successfully treated. The latest alert was issued Thursday evening after officials received confirmation via the World Health Organisation that Guatemala is now experiencing a thousand cases of cholera per week. The main affected areas are around Guatemala City, and close to the Mexican and Honduran borders.

Smith warned the public to wash all fruit and vegetables and not to drink untreated water from creeks and streams. He said that if people were unsure of their water supply, they should add a half teaspoon of Clorox bleach to each bucket of water.

"As the situation develops, we will notify the public and they should take all precautions because the ministry cannot stop cholera from coming to Belize. It has to be a community effort to stop cholera taking root in the country," he said.

January's three cholera cases in Belize were all around the coastal town of Punta Gorda in the southern district of Toledo, the poorest in the country. Research showed that one of the victims had contact with relatives in Guatemala and the disease had probably spread through contaminated water or fish. All three cases were successfully treated with rehydration therapy and drugs.

A report by the Caribbean Epidemiology Centre [Carec] said that along with Nicaragua and Costa Rica, Belize had taken successful cholera control measures.

"In Central America, these three countries have a history of substantial attention to and investment in health services and education which now appears to be paying off. The Belize experience is therefore encouraging to the rest of the English-speaking Caribbean," said the Carec report.

## BOLIVIA

### Total of 333 Deaths From Cholera Nationwide

PY0608213392B Cochabamba LOS TIEMPOS  
in Spanish 27 Jul 92 p A5

[Editorial Report] The National Epidemiology Directorate has reported that a total of 333 people died of cholera nationwide during the first half of 1992. A total of 1,589 cases were confirmed in Santa Cruz, 371 in Cochabamba, 143 in Chuquisaca, 110 in La Paz, 107 in Beni, 99 in Tarija, 86 in Tupiza, 82 in Oruro, 27 in El Alto, 4 in Potoso, and 4 in Riberalta.

## BRAZIL

### Average of 800 New Cholera Cases

PY0608213392C Sao Paulo O ESTADO DE SAO  
PAULO in Portuguese 31 Jul 92 p 12

[Editorial Report] The Health Ministry has confirmed that an average of 800 new cholera cases have been registered in the country 23-30 July. Thus the number of cholera cases now totals 17,869, of which 213 have been fatal.

## COSTA RICA

### Malaria Outbreak in Lower and Upper Talamanca

PA0808035592A San Jose Radio Reloj in Spanish  
0100 GMT 4 Aug 92

[Editorial Report] Deputy Health Minister Uriel Badilla reported a malaria outbreak in lower and upper Talamanca. So far, 28 cases have been reported in upper Talamanca. Cases have also been reported in San Carlos, Sarapiquí, and Matina. The increase in cases in Sarapiquí is due to the daily entry of approximately 150 Nicaraguans, who are not given any type of health checkup.

## GUATEMALA

### Cholera in Six Departments

92WE0486A Guatemala City SIGLO VEINTIUNO  
in Spanish 15 Apr 92 p 3

[Text] The cholera epidemic continues to be a problem in Guatemala. New outbreaks have been recorded in 1992 in six departments in the country, despite various efforts to slow the spread of the disease. This was stated by Health Minister Miguel Angel Montepeque and Director General of Health Services Francisco Arenas.

On 11 April, according to statistics on the spread of this disease, there have been 2,221 confirmed cases of cholera in Guatemala and 4,314 suspected cases. Some 2,589 persons have been hospitalized because of the disease, and 74 persons are listed as having died of it.

This situation, which reflects a new outbreak of the disease, is due to the fact that people seem to have become used to living with the disease in a passive way. They have abandoned all of the preventive hygienic measures that were adopted in 1991, when our country was affected by the disease from the mainland of South America.

Both the minister of health and the director general of health services stated that the Departments of Zacapa, Escuintla, Solola, Guatemala, Suchitepequez, and Jutiapa have the highest incidence of cholera recorded during the last few weeks. The director general of health services said that this has happened because, more than anything else, people stopped taking precautions, such as boiling and chlorinating water, not eating food from street vendors, washing their hands, and other actions. This has given cholera the opportunity to spread.

The continued presence of cholera was confirmed by the government official during his visit to the Municipality of Chicacao, Department of Suchitepequez, during which he was informed about the care being provided to persons suffering from this disease and the lack of medicine to deal with this problem.

Instructions were issued to send medicines, especially serum and antibiotics, as well as folding beds to help care for persons suffering from the disease. Even though the official stated that there were six persons suffering from cholera, information from Chicacao reports that the total number is at least 40 persons.

Minister of Health Montepeque admitted that in the Department of Jutiapa another outbreak of cholera has taken place, as a result of which more medicine and folding beds have been sent to health centers and health posts.

The official expressed his concern that the abandonment of preventive hygienic measures, particularly during Holy Week, could cause a greater incidence of cholera.

All health centers and health posts of the departments mentioned above have been supplied with the necessary medicine to deal with any increase in the incidence of this disease.

### **Cholera in Residential Areas**

*92WE0486B Guatemala City PRENSA LIBRE  
in Spanish 27 Apr 92 p 4*

[Excerpts] A total of 16 patients with symptoms of cholera have been treated during the past three days in residential areas west of Guatemala City. This was stated by Dr. Werner Casas Dubon and Dr. Esau Gonzalez Callejas, directors of the Centro Privado Medico, located in Section I, Lot 193, of the residential area.

In Zone 19 of the El Milagro residential area, six cases have been fully confirmed, and the remaining seven cases are waiting for laboratory results, Dr. Casas Dubon said.

Dr. Gonzalez stated that in the early hours of the morning of 26 April, three persons were treated with the symptoms of cholera. They were provided with appropriate assistance. They are also awaiting the laboratory results for confirmation that they have cholera.

Doctor Gonzalez added that the same situation is taking place in the residential areas of Sacoj and Lo de Bran 1 and 2, where patients are reported with symptoms of the disease every day.

The emergency began on 24 April in several sections of the residential area. The largest number and the most serious of the cases were reported in Sections "U" and "CH" of the area. [passage omitted]

The doctors also said that the number of patients increased during the course of 26 April. However, the majority of the patients returned home because the illness was only beginning. Nevertheless, one delicate case was that of Guillermo Torres, who was hospitalized.

Several sewer pipes in that residential area were not buried deep enough and had been broken by the constant passage of heavy vehicles, which caused sewage to seep into the ground, the doctors said.

These are the possible centers of contamination, which have caused a renewed outbreak of cholera. Residents have also had to bear with the bad smell and other circumstances, such as seeing sewage water running in the streets. [passage omitted]

### **Cholera Epidemic Worsens**

*92WE0548A Guatemala City PRENSA LIBRE  
in Spanish 15 Jun 92 p 4*

[Excerpt] A total of 5,779 unconfirmed cases of cholera have been reported thus far this year. To date, the epidemic has taken 40 lives. This statement was made last week by the minister of public health and social assistance, Dr. Eusebio del Cid Peralta, who admitted that the disease has had another outbreak, due primarily to the beginning of winter.

The head of the Health Ministry issued a reminder that, last year, the grand total was 3,663 cases, with 50 deaths. This proves that the disease is spreading more rapidly in 1992, although the total fatalities this year reflect the fact that infected persons are reaching treatment centers in time.

Del Cid Peralta remarked that his ministry, along with the Cholera Commission, is evaluating the treatment and behavior of the disease. This is being done because it is thought that, now that winter has begun, the disease will continue to proliferate throughout the national territory, mainly on the country's southern coast and high plateau.

He also noted that his office would again intensify preventive measures, through the news media and the various sectors that helped to bring the disease under control last year, because the population has obviously lost its fear of the disease.

According to the latest reports from the Cholera Information and Surveillance Center, Escuintla Department has reported 1,518 cases so far this year; while Guatemala Department has reported 1,297; Suchitepequez, 1,120; Solala, 604; Chiquimula, 231; Retalhuleu, 204; Zacapa, 197; Quiche, 83; Izabal and Quetzaltenango, 78; and the rest of the Republic, 369. [passage omitted]

### **Outbreak of Cholera Hits Quiche**

*92WE0548B Guatemala City PRENSA LIBRE  
in Spanish 18 Jun 92 p 23*

[Article by correspondent Jose Humberto Batz]

[Text] Dr. Mario Rivera Gomez, chief of the health area, reported that 35 cases of cholera were discovered on the site known as Las Lomas, in Quiche Department's municipality of Joyabaj.

The victims were taken to the Joyabaj regional hospital for treatment. Rivera Gomez explained that the explosive outbreak is disturbing because, as was learned, all of these individuals are members of the same family. Hence, it is believed that the epidemic broke out in that location because of noncompliance with the measures adopted to prevent the disease.

To date, 69 cases have been detected in the entire department: one in Quiche, 15 in Nebaj, two in Sacapulas, two in San Antonio Ilotenango, three in Zacualpa, six in Chichicastenango, one in Cunen, two in Uspantan, and 35 in Joyabaj.

### **'Explosive' Cholera Epidemic Kills 180**

*92WE0585A Guatemala City SIGLO VEINTIUNO in Spanish 3 Jul 92 p 4*

[Text] Minister of Public Health Eusebio del Cid admitted yesterday that the slaughter caused by cholera has exceeded the earlier predictions. The epidemic is developing explosively in rural localities to which access is difficult. The mortality rate has been very high, with 180 deaths reported to date.

Since the time the first case of cholera was reported, 13,000 persons have been infected by *Vibrio cholerae*.

The number of cases reported between January and June of this year (8,000) was up 100 percent from the less than 4,000 cases reported in the second half of 1991. The Ministry of Public Health charts indicate that 1,200 cases per week are being reported. However, the health commission is contemplating the possibility that the number of cases will increase to 1,000 per day in the coming weeks.

The above information was provided by the minister of health during a meeting with the Congressional Health Commission and deputies representing the affected communities. He asked the deputies to intercede with the mayors to ensure the chlorination of water supplies and the implementation of health actions. He also asked for support for the extension of the national state of emergency for another year.

Eusebio del Cid noted that the epidemic is mainly striking isolated localities, but he also made it clear that cholera has not at any time been eliminated. It has only moved from the western and southern coastal areas toward the central plateau, and from there northward and throughout the entire country.

The contamination of the Motagua River alone has affected half a million residents of 500 settlements, riparian localities, and communities, ranging from Chichicastenango to Izabal. The minister said that treating the wastewater throughout the basin of the Motagua River would cost more than 1.5 billion quetzales.

If the epidemic is not controlled now, it could develop beyond the health care capacity of the existing services, with a resulting increase in the death rate. The minister said that previously only confirmed cases were treated, while now all suspected cases are being treated. However, the people must continue to take preventive measures, and all sectors must participate in a social campaign against cholera.

He said that the ministry he heads has adequate medicines and that the supply is assured. However, purchases of sulfa drugs, oral rehydration salts, and tetracycline will be tripled immediately.

There is a personnel shortage, but efforts are being made, despite the strike, because there is an awareness of the seriousness of the situation, Del Cid said. He made a humanitarian appeal to doctors to reconsider their intention to stop work. Their demands are just, but they should not lose sight of the national situation and the state's inability to grant the increase they are seeking, the minister said.

### **Health Ministry Admits Inability To Control Cholera**

*PA0707044292 Guatemala City SIGLO VEINTIUNO in Spanish 4 Jul 92 p 10*

[Text] The cholera epidemic has become a true national catastrophe. It is decimating Guatemalans, especially in rural areas.

Public Health Minister Eusebio del Cid Peralta admitted last week before Congress that the mortal scourge has increased one hundredfold during the first six months of 1992.

After several months of official assertions to the effect that the disease was not a threat to our people, Del Cid now admits that 13,000 cases have been reported, 180 patients have died, and 800,000 Guatemalans are asymptomatic carriers.

Our country should never have lowered its guard to this epidemic, because according to warnings by experts from the Pan-American Health Organization, Guatemala has all the characteristics of a country where cholera can cause many deaths because of a lack of health services, potable water, and latrines, as well as widespread poverty that affects 85 percent of its inhabitants.

The Public Health Ministry mistakenly displayed a great deal of confidence that it could keep the bacillus under control. Its estimates were overly optimistic while its support system remained inactive regarding the risks looming over our population.

Now, at last, when the very dangerous nature of the scourge has been officially acknowledged, the Health Ministry must work courageously to confront it. Preventive action and a permanent alert will be necessary, in addition to an ongoing and intense hygiene awareness campaign through the mass media.

Enough of this minimization of the danger of cholera, which is about to turn into a tragedy for our people.

## HONDURAS

**Report Ties Cholera to Alcoholism in Capital**

92WE0536A San Pedro Sula LA PRENSA in Spanish  
3 Jun 92 p 8

[Text] Tegucigalpa—According to a report by Carlos Alirio Cruz, the coordinator of the National Committee for Prevention of Cholera, 36 percent of cholera patients in the capital are chronic alcoholics.

Cruz indicated that out of a total of 74 cases confirmed in the country, 40 were registered in the capital.

He added that the 14 patients being treated at Santa Rosita mental hospital are chronic psychotics.

Moreover, Cruz reported that to prevent the water of the Hombre River from being infected by the sewage water from the mental facilities, hypochlorinators were installed to purify the water before it was spilled into the river.

Aside from the capital, cases have been reported to date in Choluteca, Valle, Olancho, and Lempira.

Fourteen patients suspected of carrying the disease are currently under observation.

**Ten Deaths From Cholera**

PA0808035592B Panama City ACAN in Spanish  
2009 GMT 3 Aug 92

[Editorial Report] Public Health officials report an average of two cholera cases per day. The 10th death occurred from the disease occurred on 3 August and the total number of cases reported now stands at 220.

## JAMAICA

**Hospital Official: Typhoid Outbreak 'Under Control'**

FL0808181092 Bridgetown CANA in English  
1618 GMT 9 Aug 92

[Text] Kingston, Jamaica, Aug 8, CANA—The administrator of the Savanna-la-Mar Hospital in western Jamaica, says a typhoid fever outbreak is under control. Stephanie Edwards said the hospital had sufficient drugs and other necessities to cope with the situation.

Over the past month 14 people were admitted to the hospital about 120 miles west of Kingston, with symptoms resembling typhoid, but only four have so far been confirmed as being victims of the diarrhoeal disease which caused several deaths in the same area two years ago.

Health authorities are urging people to practise good hygiene and to desist from drinking untreated water from rivers, streams, and canals. Typhoid is usually spread through the consumption of food and drink contaminated by faeces.

## MEXICO

**At Least 6,000 Cases of Cholera**

PA0808035592D Mexico City NOTIMEX in Spanish  
2021 GMT 4 Aug 92

[Editorial Report] Health Secretary Jesus Kumate Rodriguez reported that at least 6,000 people suffer from cholera in Mexico and that current cases are due mostly to the heat wave. He said there is no reason for alarm.

## NICARAGUA

**Total of 465 Cholera Cases**

PA0808035592E Managua Radio Corporacion  
in Spanish 2200 GMT 4 Aug 92

[Editorial Report] Health Ministry officials reported increases in cholera cases, with five more cases in Managua Department and five deaths, including that of a minor. The total number amounts to 465 cases. Managua Department has the most cases, followed by Masaya, Granada, Carazo, Matagalpa, and Chontales Departments.

**Eighteen Cholera Cases in Matagalpa**

PA0808035592F Managua Radio Nicaragua Network  
in Spanish 1100 GMT 7 Aug 92

[Editorial Report] Dr. Benito Juarez reported 18 cholera cases in Matagalpa. He added that 13 brigades are working to fight cholera.

## PERU

**Malaria in Piura**

PY0608213392E Lima EL COMERCIO in Spanish  
20 Jul 92

[Editorial Report]—It has been reported that a total of 4,848 malaria cases were registered between January and June in Talara, Paita, and Ayabaca Provinces, in the Luciano Castillo Colonna subregion, Piura Department.

## VENEZUELA

**Malaria Outbreak in Bolivar, Amazonas Described**

92WE0537A Caracas EL DIARIO DE CARACAS  
in Spanish 14 Jun 92 p 8

[Article by Carmen Aurora Seijas]

[Excerpt] According to statistics from the MSAS [Ministry of Health and Social Welfare], there are 8,929 cases of malaria in the country as a whole. According to specialists at the Military Hospital, a lack of commitment and of campaigns to create awareness, as well as the bureaucracy, the economic crisis, and the neglect existing on the borders, are factors that have contributed to the return of that disease to the country.

Bolivar State and the Amazonas Federal Territory are two regions attracting visitors. Their vegetation, fauna, and landscape are inimitable in the world.

Ricardo Gondelles Amengual, an agronomical engineer and conservationist, who took part in the preparation of the environmental report presented by the Venezuelan delegation at the Rio Summit was one of the many Venezuelans lured by the notion of becoming familiar with that region of the country.

During March he decided to visit Alto Caura, a region located in the southern part of Bolivar State, with a touring group.

No one had warned him that this zone had a high incidence of malaria (4,323 cases have been reported thus far this year). Nor did they recommend that he take preventive treatment. These two omissions were sufficient cause for this Venezuelan to lose his life: the victim of a malaria infection.

Stories like that of engineer Ricardo could be repeated every hour because, since the end of Arnoldo Gabaldon's campaign there during the 1960s, no further information has been disseminated in the country on the nature of malaria, how it is transmitted, the high-risk zones, and the preventive measures that must be adopted to avoid contracting the disease. To the military, for example, suffering from malaria is "an everyday occurrence." These individuals are in the category of high-risk groups because they are almost always assigned to endemic zones and, since they are not natives of the locality, they are more susceptible to developing the disease.

According to the figures compiled by the Health Ministry, there are currently about 8,929 cases of malaria in the entire country. Most of them have been reported in the Amazonas and Bolivar State border zones.

The reactivation of malaria in the country began in 1989, with the outbreak of 43,000 new cases in Bolivar State, after Venezuela had been the first and only country in the world to have succeeded in eradicating malaria from its entire national territory.

Both then and now, this data is not considered reliable because everyday experience demonstrated a different reality.

Nearly every day someone infected with malaria arrives at the Military Hospital in Caracas. Another fact that detracts reliability from the statistics provided by the Health Ministry is that, in 1989, when the greatest upsurge of malaria in the country occurred, the Health Ministry mentioned 43,000 cases whereas the unofficial figures recorded 80,000 cases in Bolivar State.

According to a group of specialists from that treatment center, "dealing with the problem of malaria nowadays is not as easy as it was in Gabaldon's time."

"During the 1930s, when Arnoldo Gabaldon succeeded in cleaning up 461,289 square km of a territorial endemic area of 600,000 square km, the southern part of the country was not a dangerous zone. People were not moving there. There

was no mining industry, nor were there any gold prospectors, and the high-risk zones were not accessible to humans, either."

Nowadays (they explain), everything has changed. It is very difficult to fumigate Amazonas, and humans have invaded the mosquitoes' habitat without maintaining the minimal standards of hygiene. The parasites are resistant to chloroquine (the medication most used to treat the disease), and the publicity campaigns have long since been abandoned.

#### Solutions to the Crisis

According to the specialists queried, one means that might prove effective in solving this problem is if the Health Ministry were to give up the monopoly that it has on medications. "The Health Ministry has so many problems now that it can't devote itself to prevention. The bureaucracy, lack of budget, and lost commitment are some of the factors that have impeded the satisfactory operation of the campaign to eradicate malaria."

In the experts' opinion, this agency retains control over the medications "by tradition." During the Gabaldon campaign, the Health Ministry was responsible for distributing chloroquine to persons living in or going into high-incidence zones. Now, with the lack of control on the borders, it would, in their view, have to be the National Guard or the airline companies themselves that would provide visitors with the explanatory pamphlet. When an anopheles mosquito bites a human, gaining time over the infection is the only weapon that the specialists have to combat the disease.

At present, saving time does not depend solely on the speed with which the infected person seeks medical treatment. A series of data must also be acquired. For example, it is essential to know what type of parasite is causing the infection, whether or not it is resistant to chloroquine, and how much time elapsed between the event of the mosquito biting the person and when he showed the symptoms.

In the case of engineer Ricardo Gondelles, procuring those data entailed an odyssey for his relatives. Ricardo, his son, notes that when they detected the disease in him they had to go immediately to the Malariology Division located at the cemetery. The latter was the only institution authorized and equipped to detect the type of parasite causing the symptomatology. There, they found that the only specialist in biological analysis would not be coming to work in the morning.

As a favor, the assistant biological analyst did the study that they needed on an emergency basis, supplying them with the treatment supposedly suited for the type of infection shown by the patient.

As the specialists who were treating him confirmed, the treatment that they furnished for the patient at the Malariology Division was not the proper one. They had prescribed chloroquine for him, and the parasite that had infected him was resistant to that drug. He required intravenous quinine sulfate, and there was none in Caracas. They had to bring it from Maracay.



According to the physicians at the Military Hospital, this information should have been in the possession of the Health Ministry. "They should have made a map recording the high-incidence zones for falciparum, vivax, and Plasmodium malariae." They also claim that it should have been specified on it which zones contained the parasites that had proven to be resistant to chloroquine and which did not contain them.

[Passage omitted]

#### **New Outbreak of Cholera**

*PA0808035592G Mexico City NOTIMEX in Spanish  
2335 GMT 4 Aug 92*

[Editorial Report] Sanitation authorities reported that a new outbreak of cholera claimed two more lives this week. Since the bacteria entered Venezuela at the end of 1991, 26 persons have died and 1,138 cases were reported in 14 of the country's 22 states.

## BANGLADESH

### **Filaria Incidence Increases in North**

92WE0598A Dhaka *THE BANGLADESH OBSERVER* in English 8 Jul 92 p 9

[Article: "Research Institute Closed for Want of Fund; Filaria Disease Takes Serious Turn in Northern Districts"]

[Text] Panchagarh, July 7—The menace of Filaria disease in the northern part of the country has increased.

Thousands of people who have been attacked with the disease are not getting any treatment.

Due to lack of fund Filaria Research Institute at Thakurgaon, which was set up in 1967, has been closed down. The institute was founded at the initiative of World Health Organisation. But after the Liberation War in 1972, this institute lacked adequate fund to continue its research activities.

According to Health Ministry sources, there is no scheme of the government to combat the menace of Filaria which is caused due to bite of Culex mosquitoes. The hands and legs become swollen due to mosquito-bite.

Experts hold the view that this disease can be treated at the preliminary stage but if the disease spreads it is not possible to cure it totally.

A report from Thakurgaon said that during the observatory period only in Thakurgaon the number of Filaria patients has been almost doubled. In the northern part of the country, men and women are becoming almost crippled and physically incapable to do any work.

Rahimanpur, Mohammadpur, Jamalpur, Chittagong, Roypur and Nargoon under Thakurgaon and Panchagarh districts are the most affected. In these districts about 5,000 people are suffering from this disease.

In absence of proper treatment most of the patients are passing their days just by taking medicines from quacks. In some cases, after taking medicines the condition of patients aggravates. Many people are taking opium to get relief from acute pain of the disease.

According to a report of the Malaria Institute about 14 percent people of greater Dinajpur district are attacked with Filaria of which about 9.49 percent people are severely attacked with the disease.

According to experts, there is no preventive measure for this disease. But the authority can take steps to check the menace of Culex, supply drugs and cleaning the local ponds.

The local authority did not take any initiative to check the spread of the disease.

## INDIA

### **Measles Spreading in Madhya Pradesh**

92WE0553 New Delhi *INDIAN EXPRESS* in English 16 Jun 92 p 3

[Excerpt] Bhopal—Mr. Sunderlal Patwa admitted on Monday the failure of the Health Department of his Government to take timely action to check the spread of measles in 23 districts of the State. During April and May this year 62 people have died of measles in the State. The total number of cases reported till the end of May in these districts was 1,281, he said.

Talking to reporters at Vallabh Bhavan, the Chief Minister promised action against the Health Department personnel who failed to report the incidents to the State capital or were found negligent otherwise.

A committee consisting of the Minister for Water Resources, Mr. Shitla Sahay, the Minister of State for Health and Family Welfare, Dr. Gaurishankar Shejwar, and the Minister of State for General Administration, Dr. R.P. Singh, had been formed to look into the matter and submit its report in a week's time.

[Passage omitted]

### **Tamil Nadu Fights Malaria, Filariasis**

92WE0533A Madras *THE HINDU* in English 29 May 92 p 3

[Words in boldface and italics as published]

[Text] Madras, 28 May: The Health Department is grappling with the problem of malaria in urban areas which accounts for nearly 80 percent of the cases. There has been no fall in the incidence of malaria in towns and cities especially Madras, Tuticorin, Salem, Erode and Dindigul. Last year of 1.25 lakh cases were recorded throughout the State and the trend seems to continue this year also with Madras accounting for 60 percent of the cases.

The reasons for the prevalence of malaria in urban centres are many, of which poor intersectoral coordination is the most important. The Directorate of Public Health and Preventive Medicine gives only technical guidance and it is up to the local bodies to implement the programme. While organophosphorous compounds have proved successful in tackling the problem in the rural areas, they are not effective in towns and cities.

In Rameswaram, which is affected by coastal malaria, the authorities use synthetic pyrethroid, a new compound which has been accepted by the people. As a number of factors contribute to mosquitogenic conditions in the urban areas, the local bodies will have to ensure better intersectoral coordination and if possible create an agency to coordinate the activities, the sources argue.

There is even a committee under the chairmanship of the chief Secretary which regularly meets to discuss the issue. But, the follow-up is not up to the desired level.

**Problem in districts:** There is no risk of brain fever or Japanese encephalitis in Madras, official sources say. Brain

fever transmitted by the *Culex vishnui* group of mosquitoes, however, continues to be a "big problem" in South Arcot, Tiruchi and Tirunelveli districts. A programme to contain the outbreak of Japanese encephalitis in these districts has been taken up. It involves spraying of insecticides in problem pockets to keep the vector mosquito under check before the transmission season which is usually after the monsoon.

The three species of the mosquito which transmit brain fever breed mostly in paddy fields. There is no specific treatment for the disease and mortality is high. Early hospitalisation and symptomatic treatment combined with proper nursing care could save patients. According to the sources, dengue fever is "highly prevalent" in Madras largely because of the breeding of the *aedes* mosquito in water in artificial containers. The Madras Corporation has been asked by the Directorate to have houses inspected by its sanitary inspectors to ensure that such sources of breeding are eliminated.

**Hyacinth elimination:** The Directorate recently removed water hyacinth in the Chetput lake in Madras belonging to the Fisheries Department with the help of *Neochetina eichornia*—weevil insect—a parasite. It is a bio-control agent and is specific only to water hyacinth which helps in mosquito breeding and also prevents pisciculture. This bio-control agent is being tried out in the lake in Udthagaman-dalam which is covered to a great extent by the weed.

The Institute of Vector Control in Hosur has taken up research activities and training programmes on vector-borne diseases and microbiology and veterinary components have been established to widen the scope of activities. It has mapped endemic areas and take up operational research and control.

**Filariasis:** The Directorate has taken up two projects for control of rural filariasis. In Kanyakumari district, where the disease is widely prevalent, the Directorate has introduced a system by which the primary health care delivery system is tuned to detect and treat the disease through multi-purpose health workers.

In South Arcot district, Diethyl carbazine (DEC) medicated salt has been tried. Two years of trials have produced encouraging results and transmission of this disease has been "completely eliminated" in one village. This programme may be extended to other villages in the districts, the sources say.

### High Incidence of Malaria in Delhi

92WE0532A Bombay THE TIMES OF INDIA  
in English 2 Jun 92 p 11

[Article by N. Suresh]

[Text] New Delhi, 1 June: Mandi House locality in the heart of Lotyen's Delhi has the highest incidence of malaria and the pampered NDMC-run (New Delhi Municipal Committee) areas housing the nation's elites are most prone to this disease in the capital.

Early results of an on-going, first-ever locality wise survey by the Malaria Research Centre (MRC) here have more

biting news for Delhites. After NDMC, the areas falling within the cantonment have high risk of malarial attacks followed by the localities administered by the municipal corporation.

The capital has three civic bodies: the NDMC, MCD and Delhi Cantonment Board.

Scientists say the multicore malaria eradication programme by the civic bodies have not made much impact due to mismanagement and inadequate efforts to tackle the problem head-on at high-risk areas. The civic bodies have not so far bothered to identify highly-prone areas and concentrate their eradication efforts there.

In urban areas, malaria is caused by *Anopheles stephensi*, a type of mosquito. *Anopheles culicifacies* creates a havoc in semi-urban and rural localities. Another type, *Aedes aegypti* causes dengue fever and *Culex quinquefasciatus* found in large numbers in the highly unhygienic localities of East Delhi have only nuisance value and do not cause malarial fever.

Since the MRC survey began in early 1991, Mandi House recorded the highest incidence of malaria with 38.2 out of every 1,000 people testing positive. It is measured by an index API (Annual Parasitic Incidence). Experts recommend intensive eradication, measures in localities with API more than two per thousand population.

Other malaria-prone areas in the capital are: Kaushik Road, Sangli Meri, Moti Bagh, the Yamuna river bed, Delhi cantt., Rohini Sector 16, slums in R.K. Puram sector 12, Mahipalpur village near Vasant Kunj and various group housing society areas.

*Anopheles stephensi* is found widely in all the above localities. Scientists say the high incidence of malaria is due to profuse breeding of *A. stephensi* in overhead water tanks, desert coolers, ornamental fountains, ponds in parks and sluice valve chambers.

MRC scientists will prepare a master plan to tackle the mosquito menace based on their surveys. Using the data, civic authorities could concentrate control measures in high-risk areas rather than dilute it by covering unnecessary localities, thereby increasing the chances of mismanagement of funds.

Of the five major cities in the country, Madras has the highest incidence of malaria accounting for nearly 65 per cent of cases in Tamil Nadu followed closely by Calcutta, Delhi is third in terms of malarial cases, Bombay has the least number of cases due to strict enforcement of malaria-control measures by invoking the stringent provisions of the Bombay Municipal Corporation Act, a model legislation in this context. Nationwide, the malarial cases have stabilised at two million a year.

### Cholera, Other Diseases Hit Tripura Tribals

92WE0493 Calcutta THE STATESMAN in English  
25 Apr 92 p 11

[Text] Agartala, April 24—An epidemic of cholera and other enteric diseases has affected large areas in tribal Tripura

where the tribesmen are facing an acute shortage of drinking water and food materials. According to unofficial estimates at least 250 tribal men, women and children have died of enteric diseases so far.

Following his recent tour of the worst-hit areas in the North District, Mr. Nagendra Jamatiya, a senior TUJS [Tripura Upajati Juba Samiti] leader and the State's Minister for Agriculture, said that the tribals had fled their villages in some of the areas to escape the epidemic. Sources of water in the hills had dried up due to the recent drought. The rise in violence by numerous groups of armed tribal militants has added to the misery.

Altogether 84 tribal villagers died in the Chhawmanu block area of the North District alone in recent weeks. The disease is spreading to new areas. Though medical teams have been sent to the far-flung areas the dearth in supply of drugs and saline water bottles has made the situation difficult. In a delayed move to provide foodgrains through fair price shops the authorities have reactivated the public distribution system in the hill areas. The CPI(M) [Communist Party of India-Marxist] activists are providing relief and medicine from party funds in some of the worst-hit pockets, it was stated.

Mr. Jamatiya said that the tribals were facing an acute water scarcity in the Govindabari, Raisyabari, Gandachhara, and Ratannagar regions of the south district.

He said at least 150 tribals had died of diseases in the State so far. About 100 families had deserted their hamlets in the Sadar sub-division alone, he added. "Efforts are now being made to bring back those families after setting up medical camps in these areas," the Minister said.

The jhum crop in the hills was badly affected following the drought last year. The tribal villagers in many areas could not start sowing this year because of the drought. Following the recent rise in the extremist activities tribal cultivators cannot move out to their fields. A large number of families have already crossed over to Mizoram and Bangladesh.

### **Cholera Outbreak in Refugees' Camp**

92WE0494 New Delhi PATRIOT in English 30 Apr 92  
p 3

[Text] Cholera has struck in a big way in the shabby Kasturba Niketan camp housing hundreds of Bangladeshi and Punjabi refugees in the posh Lajpat Nagar-II area.

Till Tuesday, five cases of cholera are registered with Infections Disease Hospital at Timarpur. Municipal sources revealed several more have developed the symptoms and are likely to be admitted in the Hospital.

Meanwhile, mobile medical van and water tanker are deployed and the residents were asked not to drink tubewell (installed in the camp premises) water. The cleaning of camp premises is going on at war-footing level.

The camp (as reported by PATRIOT in a story "Epidemics haunt refugee camp" on April 25) barely has any civic facilities.

The initial enquiries, revealed that the tubewell water, which is not chlorinated, had caused spreading of cholera.

Though way back in '88 since the first outbreak of cholera the Government has instructed the authorities to supply chlorinated water.

The municipal authorities had reportedly written to the secretary of the PWD to take effective actions.

As the summer is setting in the Capital, more cases of cholera had been reported in other parts of Delhi also.

Municipal health officer Dr. Dev Raj informed that 43 cases of cholera had been registered with the Infectious Disease Hospital till April 27.

Dr. Dev Raj said the cases of gastroenteritis have also increased from 768 in January to 3,760 in April 1992.

### **Reports on Delhi Cholera Situation Required**

92WE0534A New Delhi INDIAN EXPRESS in English  
23 May 92 p 5

[Text] New Delhi: The Union Health Ministry has ordered the Delhi Administration to furnish weekly reports about efforts to curb the cholera outbreak in the city, which has already afflicted 223 people in the last two months.

In a statement released on Friday, the ministry declared its intentions to ensure the availability of adequate quantities of chlorine tablets and ORS packets to fight the threat. These are to be distributed free of cost through ration shops and MCD [expansion unknown] dispensaries.

Interestingly, the release shied clear of mentioning anything about the specific extent of the problem, apart from stating that there had been "some increase" in the number of cholera cases, compared to the same period last year. Besides, while the release says at one point that the increase was reported at "some pockets of the Capital," it subsequently affirms that the cases are "scattered all over the Union Territory of Delhi."

According to it, no significant clustering of cases has been noticed so far, despite the increase in the number of cases.

While stating there were "reasons for concern and need for urgent remedial action," it added there was no cause for "undue alarm or panic."

The ministry release echoed the need to ensure adequate and safe water supply through water tankers and tube wells, cleaning up of sewerage lines and garbage removal.

It put the basic cause for the disease to be dearth of safe drinking water.

### **Cholera Cases Reach New High in Delhi**

92WE0554 New Delhi PATRIOT in English 16 Jun 92  
p 3

[Text] Despite Delhi Administration's measures to check the spread of cholera in the Capital this summer, the total number of the infectious disease reached a new high of 388 on Monday.

Doctors at the MCD-run Infectious Diseases Hospital (IDH) said that in the first fortnight of June alone 84 new

cases of cholera have been reported. The total number of patients suffering from gastroenteritis has gone up to 1,200, they said.

But the actual cholera figures could be quite high as only a fraction of the cases get reported in the IDH. All cases of water-borne diseases are supposed to be referred to the IDH, from all major hospitals in the city. IDH is only one of its in the Capital. [as received]

Doctors at the IDH said that the main threat of cholera may come in the next month. It was in July 1988 that cholera spread into an epidemic form killing many in its wake. No death has yet occurred at the IDH this year out of cholera, claimed an IDH spokesman.

However there have been reports that two children from Khajoori Khas, a village in East Delhi had died due to cholera in the Hindu Rao Hospital. But the hospital's acting Medical superintendent, Ashok Virmani stated that no case of cholera has been reported in the hospital this year. He also denied any loss of human life in the hospital as a result of cholera.

**Kerala Fish Disease Part of South Asian Scourge**  
*92WE0535A Madras THE HINDU in English 4 Jun 92*  
*p 4*

[Words in boldface and italics, as published]

[Text] Kochi, 3 June: The ulcer-producing fish disease which caused a wave of panic in Kerala coast last year—and is still reported to be cropping up intermittently in Kuttanad—is identical to the disease which cropped up in the water of South Asia from Australia to India.

This came to light last week, during intensive discussions between Indian marine scientists and experts from a Thailand-based institute specialising in fish health.

The disease—known in the fishery science community as an Epizootic Ulcerative Syndrome (EUS) was first detected in 1972 in Queensland, Australia, says Dr. Kamonporn Tonguthai, Director of the Aquatic Animal Health Research Institute at Kasetsart University, Bangkok. It spread to New South Wales by 1974, then cropped up in Papua-New Guinea in 1979. What first surfaced in Australia as a marine fish disease, soon spread to fresh water species and by 1980, Indonesia and Malaysia reported the disease.

Dr. Tonguthai, accompanied by her colleague, fishery pathologist, Dr. Supranee Chinabut, spoke to THE HINDU last week at Alappuzha, where they fielded anxious questions from delegates and industrialists attending a "Save Kuttanad" seminar.

The disease struck Thai and Filipino waters in 1986, then simultaneously hit Laos and Myanmar. By 1987 it was reported in Bangladesh and a year later in the North Eastern Indian states, as well as in Nepal and Bhutan, Dr. Tonguthai said.

Most of these countries have contiguous water masses, but the sudden appearance of EUS in the Kerala estuaries in 1991 cannot be explained.

**Feeling of déjà vu:** The Thai scientists, discussing the disease with colleagues at Alappuzha and a day earlier at Thiruvananthapuram, had a distinct feeling of *déjà vu* the panicky initial reaction of the public when dead fish with large ulcers floated, in the Kerala backwaters, the newspaper speculations whether the fish were cancerous, the immediate impact on the fishery trade... they had gone through all this in Thailand, where catfish and snakehead fish died in large number.

Based on their 20-year study of the ulcerative syndrome, the Thai experts explained to Indian colleagues that the disease was not caused by any single pathogen—virus, bacteria or fungus. It might eventually be explained by a combination of factors; the affected fish can still be cooked and eaten after cutting off the visible ulcer portion, since the disease is not known to survive temperatures above 60 degrees; environmental degradation of the water is a strong contender as a cause; a view which matches that of Indian scientists like Dr. I.S. Bright Singh of the Cochin University's School of Environmental Sciences. According to Dr. Singh the heavy use of pesticides and insecticides in the Kuttanad might have triggered off last year's EUS episodes.

Increased Indo-Thai cooperation and exchange of data on EUS is on the anvil.

## MOROCCO

**Efforts To Combat Horse Pox Said Successful**  
*92WE0489A Casablanca LA VIE ECONOMIQUE*  
*inFrench 22 May 92 p 15*

[Article by Jamal Amiar: "Decisive Campaign Against Horse Pox"—first paragraph is LA VIE ECONOMIQUE introduction]

[Text] The horse pox hit Morocco in the fall of 1989. Nearly three years later, the fight against this disease, which affects the equine, has reached a decisive stage.

On 27 April, a new campaign of vaccination against horse pox was started; it will reach a total of 2.4 million horses, mares, and donkeys.

The campaign will end on 30 June. According to Dr. Abdelhak Tber of the Ministry of Agriculture in Rabat, "this effort was made possible in particular by the development in Morocco of a vaccine against horse pox."

### The Epidemics Came From the North

There are 2.4 million horses, mares, and donkeys in Morocco, and these animals play a very important part in rural and agricultural life, not to mention sports. Plowing and carrying, the equidae play a vital part in Moroccan rural areas.

This situation seemed seriously threatened in October 1989, when the first cases of horse pox were reported in the Tetouan area.

In that region of the country it was observed that horses, mares, and donkeys were losing their appetites, developing fevers, or again starting to cough.

The horse pox had started to hit Morocco; it came from Spain where zebras from Namibia had been imported in 1987.

Soon vaccination started, in a first stage, around Tetouan but also around Tangiers, Larache, and Chechaouen, and close to 1,400 animals were slaughtered and their owners compensated.

In a second stage, a quarantine line was established from Larache to Sidi Kacem and up toward Al Hoceima.

However, if the spread of the disease was not lightning fast and deadly, as might have been expected, that was because already in October 1987, when the disease appeared in Spain, monitoring committees were set up in northern Morocco.

At the same time, all vehicles coming from Spain were systematically sprayed with pesticides. All transfers of Equidae between different zones were prohibited, and vaccine stocks were constituted. We were on our guard.

#### **A Vaccine 'Made in Morocco'**

The first preventive measures thus being taken, all Equidae in the country were vaccinated as fast as was feasible, while the Ministry of Agriculture and the Biopharma Laboratories launched research to develop a vaccine against horse pox, which has now been achieved.

This considerable progress made it easier to fight the horse pox and it encouraged Ministry of Agriculture officials in charge of animal health to persevere. As a result of their efforts, already in July 1991, it was possible to inoculate all Equidae in the country.

Airplanes and helicopters were also used to control the horse pox, in particular through aerial pesticide-spraying campaigns above marshes, forests, and along rivers. Close to 70,000 hectares were treated in 1989 and 1990. At the close of the current generalized booster vaccination campaign, on 30 June, 2.4 million animals will have been inoculated against horse pox.

After that, all we have to do is wait 12 months for the OIE, the International Epizootic Organization, to declare Morocco a "noncontaminated zone."

## **NEPAL**

### **Over 870 Refugees From Bhutan Die in Camps**

*BK2307162192 Hong Kong AFP in English 1423 GMT 23 Jul 92*

[Text] Kathmandu, July 23 (AFP)—More than 870 Bhutanese refugees in Nepal have died from disease and malnutrition in camps in the country's southeast in recent weeks, local administration officials said Thursday.

"Out of the 54,896 Bhutanese refugees, over 870 died of malnutrition and seasonal diseases while 177 more babies were born at the refugee camps in recent weeks," the Jhapa District Administration (JDA) was quoted as saying by Nepal's national RSS News Agency.

Ethnic Nepalese living in Bhutan have been fleeing back to their homeland claiming persecution and atrocities committed by the Bhutan Government.

The JDA added that many refugees were still entering Nepal through the Kakarbhita border checkpoint.

Human Rights Organization of Bhutan spokesman D.P. Basnet on Thursday confirmed the report: "On July 21, as many as 24 truckloads of Bhutanese refugees arrived in Jhapa District in search for food and shelter."

The refugees have taken shelter in resettlement camps in southeast Nepal along the Kankaimai and Timai River banks, at Goldhap Beldangi, in Jhapa District, and at Pathari, in Morang District, reported RSS.

Meanwhile, statements broadcasted by Bhutan's state radio continue to reassure Nepalese ethnic communities living in the kingdom that they need not leave their homes and return to Nepal.

But Basnet claimed the government's words did not match their actions and that authorities in districts the refugees are leaving have begun to sell cash crops grown by them.

"If the eviction was not pre-planned, why is the district administration auctioning the cash crops of the innocent villagers even before their departure," Basnet said.

Basnet also claimed the radio appeal to the refugees to stay in the kingdom came at a time when 400 families were awaiting transportation to the Nepalese border to be deported.

**Syphilis in Zlatoust**

92WE0476A Moscow IZVESTIYA in Russian  
21 May 92 Morning Edition p 8

[Article by Yevgeniya Manucharova: "Syphilis in Zlatoust Children's Day Care Centers"]

[Text] It was reported from Zlatoust, Chelyabinsk Oblast by ITAR-TASS that 14 cases of syphilis were registered in the city. Epidemiological chains containing dozens of persons were revealed. Half of them are unemployed. They include drug addicts, alcoholics and frequenters of hangouts; three are in prison. And what is most terrifying is that the epidemic has involved children.

What does the Russian Ministry of Health think about this?

Oleg Sultanbekov, the deputy chief of the public health care administration, to whom we communicated the TASS report, assured us that Russia is not threatened by a syphilis epidemic: "Testing has been organized in all regions. Both mandatory and voluntary. Of all who are under suspicion—prostitutes, frequenters of hangouts, asocial elements, and those who live an unrespectable way of life. Meticulous work is being done in each territory to examine all secondary school and preschool institution workers, as well as workers of food industry...." It must be recognized however that "syphilis is now being encountered not just in Zlatoust alone. Unfortunately disease foci that are significantly larger exist."

How many patients are there in the country?

The Ministry of Health does not offer an exact figure. Things are reckoned differently here. Figures are expressed in the amount of patients per 100,000 population. In 1990 there were 5.4, and in 1991 as many as 7.2 cases. Today there are even more. Attempts are made to reassure us: "This is not as dangerous as AIDS, because we know exactly what syphilis is: If you don't want to, you won't get it...."

But what about children? They don't want it, after all!

As it turns out, children in Zlatoust were endangered because syphilitic adults concealing their problem were discovered in the day care centers. Among them were an 18-year-old cleaning woman and a teacher's aide who had been in contact with 17 youngsters. An examination revealed that all children were healthy.

This information was provided at the Russian Ministry of Health by Liliya Tikhonova, the chief specialist in dermatovenerology. She says that what is most alarming now is that adolescents are being infected with syphilis (they are now entering into dangerous sexual contacts). Adults use preventive measures more actively. They themselves go for testing, all the more so because the testing offices guarantee anonymity, and they are being established in all cities. They also go to clinics. But adolescents usually try to conceal their malady.

The Ministry of Health has drawn up a state republic program to control venereal disease. It is being implemented together with the Procuracy and the Ministry of Internal Affairs. Syphilis, you see, is directly associated with a socially unfavorable situation. The program's success

depends on the efficiency of the response to warning signals: A dangerous focus must be revealed as soon as possible, and its presence must be communicated to the center as quickly as possible. This is why educational work is so extremely important. It has been going on for a very long time in Chelyabinsk Oblast, said L. Tikhonova, which is possibly why the dangerous foci in Zlatoust were revealed so quickly. And the authorities there want to attract the attention of the population to the advancing problem.

**Tick-Borne Disease in Perm Worries Medics**

MK260609492 Moscow ROSSIYA in Russian  
No. 26 24-30 Jun 92 p 7

[Unattributed report: "Perm"]

[Text] The first cases of the tick-borne disease borreliosis, which is considerably more serious than encephalitis, have been recorded in Perm Oblast. Medics are preoccupied with finding medical preparations to treat the disease of which they have no previous experience.

**Rabies Posing Increasing Health Threat**

LD3007151892 Moscow Mayak Radio Network  
in Russian 0800 GMT 30 Jul 92

[Text] Far fewer people have died in Kyrgyzstan this year from mud flows, floods and earthquakes than from rabies. In Osh Oblast alone six people have died in the past few days after being bitten by infected dogs. A report to the government issued today by the republic's Ministry of Health stresses that in the southern part of this mountainous region medical workers have recorded more than 3,000 cases of the disease in the past six months.

**Diphtheria Outbreak in Moscow**

LD2206185592 Moscow Russian Television Network  
in Russian 1600 GMT 20 Jun 92

[From the "Novosti" newscast]

[Excerpt] Moscow is witnessing an outbreak of diphtheria in Moscow. Its time someone shouted for help. This is how the deputy chief medical officer commented on the situation. A total of 346 persons have been hospitalized with this illness since the beginning of this year; eight have died. A rise in cases of diphtheria has been observed among adults, who make up 80 percent of such cases. Many had no idea that adults can also be afflicted by this disease.

Medical specialists think this outbreak of diphtheria has been caused by parents who refrain from vaccinating their children, the shortage of disposable syringes and by the lack of basic hygiene knowledge. [passage omitted: correspondent asks people in the street whether they know about the outbreak] [video shows an official and people in the street being interviewed; sick person in hospital]

**Seven Hospitalized in Khabarovsk Diphtheria Outbreak**

PM1007095192 Moscow ROSSIYSKAYA GAZETA  
in Russian 9 Jul 92 First Edition p 1

[Report from ROSSIYSKAYA GAZETA, ITAR-TASS "News" roundup: "Lack of Immunity"]

[Text] An outbreak of diphtheria has been recorded by the Khabarovsk health and hygiene inspectorate. So far seven people have been hospitalized but the threat of the infection's spreading remains. It is a particular danger to the adult population because it is a severe form of the illness and in the majority of cases affects the cardiovascular system. As Faina Bogomolova, the city's chief epidemiologist, said, adults have lost their immunity because of the absence of vaccine in the body. In the past 20 years antidiphtheria injections have mainly been administered to children. Mass vaccination of the population is now underway in Khabarovsk, especially among trade, transport, and service workers.

#### **Authorities Report Increase in Botulism Cases**

*LD0708205792 Moscow ITAR-TASS in English  
1705 GMT 7 Aug 92*

[Article by ITAR-TASS correspondent Oleg Velichko]

[Text] Moscow August 7 TASS—Over three tonnes of foodstuffs have been removed from state and private sales in Moscow by the city Sanitary-Epidemiological Control Service due to the overdue terms of food validity, says a document of the Moscow Center of the State Sanitary-Epidemiological Control Service.

In comparison with the previous year, the botulism case rate has increased almost eight times. Since the year beginning 59 people have been taken to hospital, four of them died.

The document says Muscovites should abstain from buying in the street dairy and meat perishables, confectionery and various canned goods.

#### **Contaminated Meat Infects 18 People with Anthrax**

*LD2107142192 Moscow ITAR-TASS in English  
1333 GMT 21 Jul 92*

[Article by ITAR-TASS correspondent Anna Bakina]

[Text] Moscow July 21 TASS—Eighteen people are sick with anthrax at present in the settlement of Ikon-Khalk in the Karachayevo-Cherkessian Republic within Russia. Another four people are suspected of having the same dangerous disease, TASS was told on Tuesday by Anatoliy Monisov, deputy chairman of the Russian state committee on epidemiological control.

The disease appeared after people ate meat of sick cattle. Some of them contracted the disease while cutting the meat of the animals which had not been injected as their owners did not want to pay for injections.

Doctors have to check on 160 people who could have bought the meat. A special medical team was dispatched to the area.

The state of health of all the sick people is satisfactory at present. Lethal outcome is excluded, doctors said.

#### **Anthrax Epidemic Threatens Karachayevo-Cherkess Oblast**

*LD3107160592 Moscow ITAR-TASS in English  
1208 GMT 31 Jul 92*

[Article by ITAR-TASS correspondent Nikolay Stazhkin]

[Text] Cherkessk July 31 TASS—An outbreak of Anthrax registered in the Russian Karachayevo-Cherkess Autonomous Republic, was described by the head doctor of the city's Sanitary Inspection Valentina Petryuk as one of the worst in the republic over the past two decades.

A 16-year-old girl has died, one out of the 20 patients affected by the disease. Anthrax cases have also been reported in the neighbouring region.

The Anthrax-causing virus has been detected in sausage produced by the local plant. The prolonged rains have uncovered old burial places of animals affected by the virus.

It appears the virus remains dangerous for many years hidden deep underground.

Measures are being taken to prevent the spread of the epidemic. Medical experts from Moscow have arrived to examine all those who had any contact with sick people or ate contaminated sausage.

#### **Pigs in Moscow Oblast Afflicted by Swine Fever**

*LD2906023992 Moscow Programma Radio Odin  
Network in Russian 0730 GMT 25 Jun 92*

[Text] Pigs on the subsidiary farm of the Gorodishenskaya factory, which is situated almost on the very border of Moscow oblast, have been stricken by an outburst of classical swine fever.

Urgent quarantine measures have been put into effect, but specialists have concluded that, in spite of them, there is serious danger that the dangerous disease might spread to the adjacent regions, villages, and towns. It is necessary to carry out urgent vaccination of all animals in all adjoining areas.

#### **Anthrax Discovered in Ulyanovsk Pig Carcasses**

*PM1307101992 Moscow IZVESTIYA in Russian  
9 Jul 92 Morning Edition p 6*

[Report by Valetin Razboynikov: "Anthrax Discovered"]

[Text] Anthrax has been discovered at the Ulyanovsk meat combine in the carcasses of slaughtered pigs. The animals arrived here from the collective farm named for Thaelmann, Tsvil'skiy Rayon.

Preventive treatment has been provided for over 100 workers at the enterprise. The farm has been put under quarantine, disinfection is under way, and veterinarians are conducting a household by household survey, checking the health of household animals. Specialists believe it will not get as far as an epidemic, but there is no guarantee that this terrible disease will not be discovered again after a while.



## REGIONAL AFFAIRS

**Increase in Salmonella Cases**

92WE0573A Hamburg DIE WELT in German 18 June 92 p 7

[Article by Rolf Lautusseck: "Salmonella On the March"]

[Text] Food poisoning cases have increased at a rapid rate. For about six years now an alarming rise in the number of reported cases worldwide has been noted: The number of cases of poisoning is doubling every three years. This trend is by no means characteristic of the conditions in a developing country—it is true of Africa and Asia as well as North America and Central Europe. Whereas in 1990 there were only 120,000 cases of food poisoning, 180,000 cases were registered in 1991. To be sure, salmonella is usually responsible, but other bacteria also play a role which is not to be underestimated. New pathogens are also constantly being added to the well-known ones.

Bacterial food poisoning usually causes a more or less severe case of diarrhea. A healthy person withstands this acute illness unharmed. For the elderly, however, it can end in death, as the example of a nursing home in Lower Saxony illustrates: In late May seven elderly people died after eating strawberry cream that had been made with raw eggs. Nursing infants and unborn children whose mothers have contracted food poisoning are also at risk, as are persons with a weakened immune system.

"Moreover," said Dr. Klaus Gerigk of the Federal Health Office (BGA) at the World Bromatotoxism [food poisoning] Congress, which is currently under way in Berlin, "we should not neglect the complications of poisoning such as arthritis and circulatory disorders." The organizer of the congress is the BGA's Institute of Veterinary Medicine in Berlin. Regarding the salmonella problem, the BGA's view is that "It is not enough to examine foodstuffs for contamination by pathogens. Effective salmonella control has to start with the monitoring of animal feed and animal husbandry practices."

Chickens ingest salmonella in their feed without exhibiting external indications of disease; the bacteria are transmitted through eggs that are laid. Up until a few years ago, this path of infection did not exist, but since 1986 a certain strain of bacteria, which originated in England, has caused a sharp increase in illness in humans. The salmonella strain responsible infests the ovaries of chickens with the result that the bacteria are already present in the freshly laid eggs. It is unclear whether it was intensive poultry production, an especially susceptible breed of chicken, or increased aggressiveness of the pathogen that opened up this path of infection. In any case, the result is that eggs and poultry are increasingly infected with salmonella.

In addition, too little attention is being paid to the handling of eggs and poultry in private households. Says Gerigk: "Frozen chickens are thawed out and the packaging is often left lying on the kitchen table for a long time. The chicken is temporarily placed on a plate on which there are other foods. This leads to the transmission of the pathogen and we often find it in foods where we never expected it." Chicken is no longer a source of infection after it has been cooked because the bacteria are killed by the heat. Only those foods are dangerous that have been

infected by the pathogens due to unsanitary conditions and that are not heated prior to consumption.

"We are not satisfied with all these explanations," says Gerigk. "We do not have a handle on the true reason for the increased incidence of food poisoning."

## FINLAND

**Rare Bacteria Found in Turku Hospital**92WE0515A Helsinki HELSINGIN SANOMAT  
in Finnish 19 May 92 p A5

[Unattributed article: "Rare Nosocomial Bacterium Found in Turku"]

[Text] A nosocomial bacterium rarely seen in Finland was found in six patients in the Turku University Central Hospital intensive care unit during April and May. The bacterium is methicillin-resistant *Staphylococcus aureus*, against which only a few drugs are effective.

The hospital has taken steps to prevent further infections, and for the time being no new patients will be admitted to the intensive care unit. An auxiliary unit has been set up in the cardiology ward for patients requiring intensive care.

It has become necessary to limit the number of patients admitted. Admission of some patients has been postponed until the end of May or beginning of June.

"We have taken action because we want to bring the bacterium quickly under control," said Dr. Pirkko Kotilainen, a specialist in infectious diseases. "This bacterial strain has not been allowed to take up residence in Finnish hospitals, but it has been common in other parts of Europe since the 1960s."

According to Kotilainen, there are no symptoms as such associated with the newfound bacterium, which poses no risk to healthy people. Some 20 percent of all Finns normally carry *Staphylococcus aureus*.

The symptoms of infection depend upon the patient's primary disease. Intensive-care patients are especially susceptible to infection.

Symptoms are skin infection, respiratory tract inflammation, and infection subsequent to insertion of intravenous cannulas. Two of the six patients infected in Turku are asymptomatic.

Kotilainen points out that fortunately the bacterium was not found in the surgical unit, where it would have been even more dangerous. The bacterium could cause wound infections in patients undergoing surgery.

According to Kotilainen, the bacterium is not dangerous to hospital employees or visitors.

Kotilainen believes that isolated and infected patients may have to prolong their hospital stay. How long it takes to cure the infection depends upon the degree of inflammation.

The bacterium is known to be transmitted mostly through direct contact. So it is important to emphasize the washing of hands. To some extent, staphylococci can also be transmitted by airborne particles.

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